

CANADA

REPORT

OF THE

MINISTER OF PUBLIC WORKS

ON THE

WORKS UNDER HIS CONTROL

FOR THE

FISCAL YEAR ENDED MARCH 31

1918

*Submitted in Accordance with the Provisions of Chapter 39, Section 34,
of the Revised Statutes of Canada.*

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OTTAWA
J. DE LABROQUERIE TACHÉ
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1918

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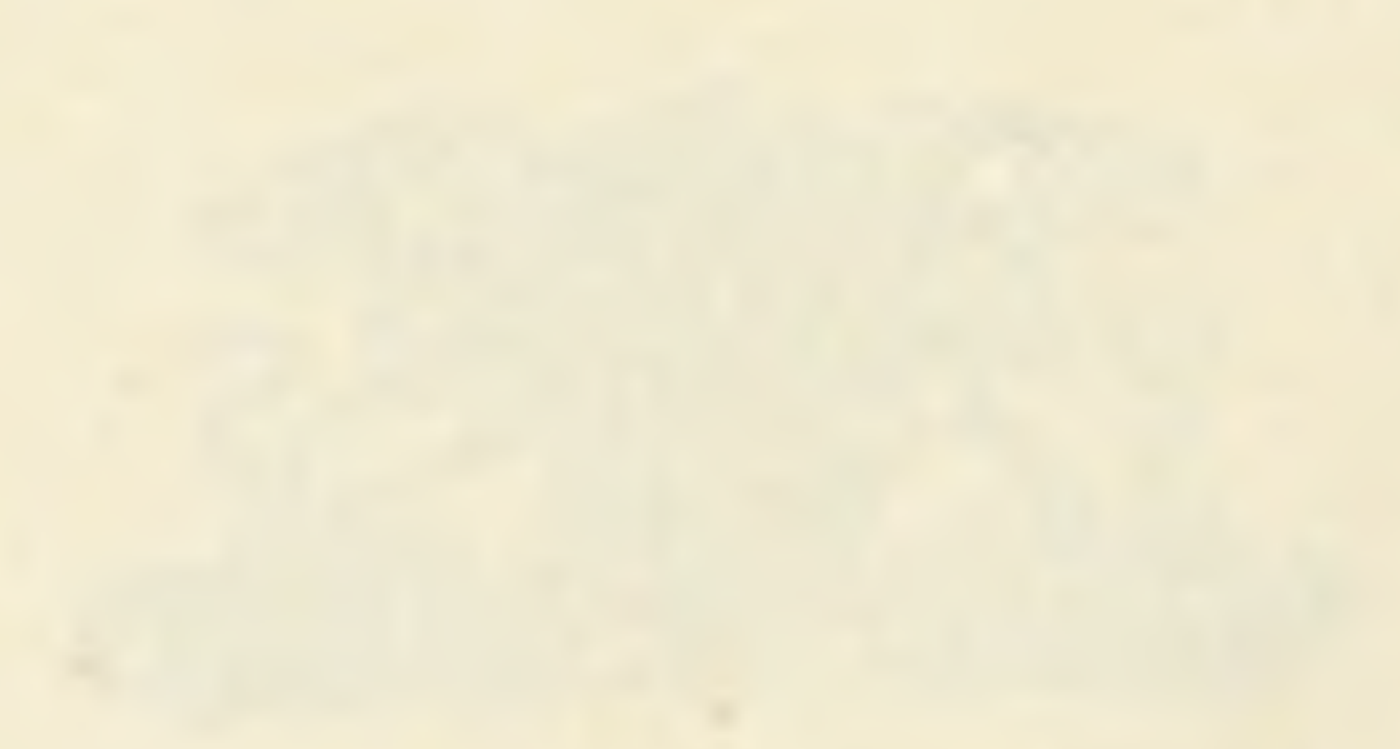
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*To His Excellency the Duke of Devonshire, K.G., P.C., G.C.M.G., G.C.V.O., etc., etc.,
Governor General and Commander in Chief of the Dominion of Canada.*

I have the honour to lay before Your Excellency the Report of the Department of Public Works of Canada, for the fiscal year ended March 31, 1918.

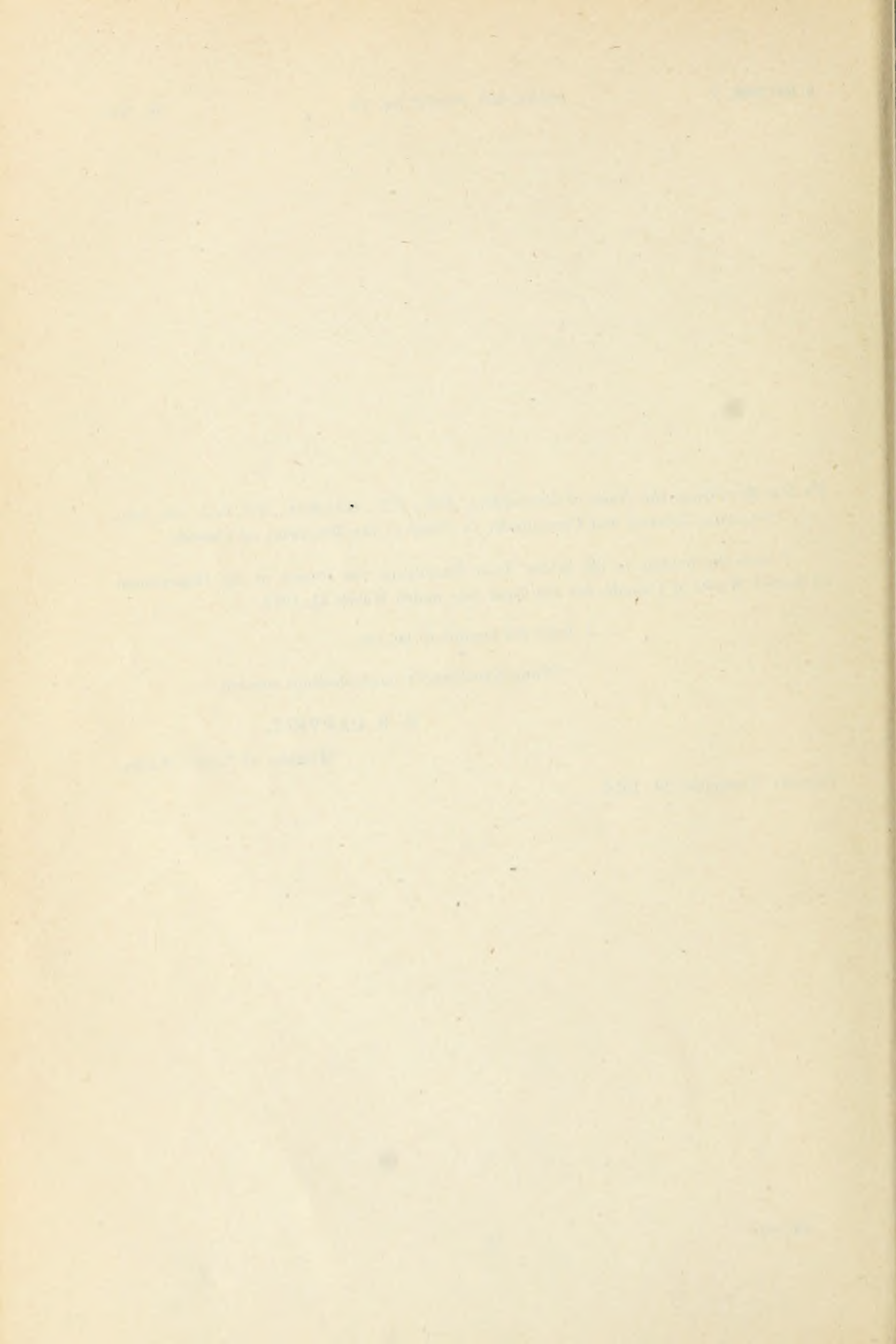
I have the honour to be, sir,

Your Excellency's most obedient servant,

F. B. CARVELL,

Minister of Public Works.

OTTAWA, December 14, 1918.



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REPORT

OF THE

DEPUTY MINISTER OF PUBLIC WORKS

FOR THE

FISCAL YEAR ENDED MARCH 31, 1918.

DEPARTMENT OF PUBLIC WORKS, CANADA.

OTTAWA, November 1, 1918.

Hon. F. B. CARVELL,
Minister of Public Works,
Ottawa, Ont.

SIR,—I have the honour to submit the report of operations of the Department of Public Works during the fiscal year ended March 31, last.

EXPENDITURE.

The total expenditure made by or through the department during the fiscal year 1917-18, on its various works of construction, maintenance, and operation, amounted to the sum of \$14,055,207.70. The details of this amount are classified under the following heads:—

Harbour and river works	\$ 5,551,773 97
Dredging, plant, etc.	1,405,838 16
Slides and booms.	64,859 36
Roads and bridges.	18,991 41
Public buildings.	5,843,288 72
Telegraphs	751,451 48
Miscellaneous.	419,004 60
Total.	<u>\$14,055,207 70</u>

The department has carefully adhered during the year under review to the policy of retrenchment which has been followed since the outbreak of the war, with the result that the aggregate outlay this year is \$2,106,388.50 less than that of the preceding year; and \$15,228,109.12 less than the expenditure three years ago. The parliamentary grant for this year was \$9,914,057.70 less than that for the year 1916-17 and will be further substantially reduced for the year 1918-19.

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REVENUE.

The revenue for the year amounted to the sum of \$421,491.84, and is made up as follows:

Slides and booms..	\$ 26,187 92
Graving docks..	56,484 16
Rents..	106,205 14
Telegraphs..	204,877 43
Casual revenue..	27,737 23
Total..	<u>\$421,491 84</u>

It will be noted that there is a decrease of \$71,768.17 from last year's figures, which is practically the difference in the returns from slides and booms. The other items of revenue while showing fluctuation from the preceding year have aggregated about the same amount. The great decrease in slides and booms revenue is attributable to the new arrangement made last year whereby the St. Maurice slides and booms system was leased to the St. Maurice River Boom and Driving Company, Limited, from the first of April, 1917, at a rental of \$1 per annum. The company was to collect the rates of tolls established by Order in Council, and after defraying the cost of maintenance and operation was to pay over the surplus there might be of revenue over expenditure. When this system was operated direct by the department, the practice was not to charge the cost of maintenance and operation against the revenue, but to defray expenditures from certain special appropriations granted for that purpose and return the entire collections as revenue. No payment has so far been made by the company under the existing agreement but, in any event, the change of method by which all expenditure is now deducted from revenue is bound to show a very substantial decrease in the latter.

Reference was made last year to the particularly small returns from the Ottawa River district. This year the collections were \$9,904.38 more than the previous year, and the number of sawlogs 1,059,364 more than last year; the increase being due to the large quantity of logs from tributaries coming out which had been hung up the previous year.

HARBOUR AND RIVER WORKS.

The total expenditure in this branch of the Department of Public Works was \$5,551,773.97, of which \$4,097,211.58 was charged to capital and \$1,454,562.39 to income. This is almost one million dollars less than last year's outlay.

The following is a list of works which have been completed during the year:—

Nova Scotia.—East River—River improvements and lock.

New Brunswick.—Small landings at Bass river, Moulies river, and St. Nicholas river.

Quebec.—St. Zotique—Small icebreaker.

Ontario.—Desbarats, small landing; Fort William, quay walls, Kingston harbour improvements, and Port Arthur pile protection breakwater.

British Columbia.—Sea Otter cove, small landing, Steveston jetty, second section at mouth of Fraser river, and Victoria breakwater.

The following works were under contract but unfinished at the end of the year:

New Brunswick.—St. John—Courtenay bay, harbour improvements.

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Quebec.—Laprairie dyke, Rimouski harbour improvements, River St. Charles improvements, and the Champlain dry dock at Lauzon.

Ontario.—Port Stanley extension to western breakwater and Toronto harbour works.

British Columbia.—Vancouver, shed on west side of wharf, and Victoria, wharves and shed.

DREDGING.

The expenditure under this head amounted to \$1,405,838.16, a decrease of \$1,004,575.08 from that of the preceding year.

There were seventeen units of the departmental dredging plant not in commission during the fiscal year 1917-18. This released several Public Works tugs, and advantage was taken of this fact to place them at the disposal of the departments of the Government in need of such vessels; the Naval Service Department making use of the steamer *Speedy*, tugs *Helena*, *Canso* and *Sir John*; and the Customs Department making use of the tug *Canso* prior to this vessel having been taken over by the Naval Department.

The expenditure on the plant has been kept as low as possible, consistent with economic efficiency, and no new plant has been acquired or constructed. The outlay on contract dredging amounted to only \$53,359.07.

The dredging of the channel in the East river, Pictou harbour, Nova Scotia, was completed. This work has been under way by dredge *P. W. D., No. 5 (Northumberland)* since 1908, and the work has involved the removal of 2,972,228 cubic yards.

A channel has been completed in the Saguenay river, giving a least depth of 16 feet and a width of 250 feet from the foot of the battures to Chicoutimi.

A satisfactory commencement has been made in removing shoal patches and points, which have been a source of danger to navigation in the main channel of the St. Lawrence river in Lake St. Louis.

This season saw the practical completion of the West Fort turning basin of the Kaministiquia river, at Fort William. The improvement of this harbour by dredging, to the extent planned, is expected to be finished next season.

The work at Port Arthur harbour during this season consisted in easing the entrance to the Government elevator slip; widening the main harbour south; widening the King's channel; completing the Saskatchewan Co-Operative and Grain Growers' slip and commencing the Richardson's elevator slip.

The close of the year has seen the completion of the widening and deepening of the channel through the First narrows to Vancouver harbour, and the removal of Parthia shoal; there is now a least depth of 35 feet over the First Narrows channel and Parthia shoal, and a least width of 1,200 feet in the channel, which had a width of 450 feet and a depth of 30 feet when the work was commenced in December, 1911. To effect this improvement has involved the removal of 4,139,260 cubic yards.

At Nanaimo, work has been carried on since 1914. By the removal of Rocky shoals the harbour has been greatly improved; no further work being required for presently prospective navigation.

This season saw the completion of the improvement, by dredging, of Victoria harbour. The Rocky shoals obstructing the free passage of the vessels have been removed so that there now exists in the inner harbour the safe depth of 20 feet, which is expected to be sufficient for the accommodation of shipping for some time.

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Special reports, to the number of thirty-one, were forwarded during the year to the Departments of Marine and of the Naval Service, so that mariners might be kept acquainted by means of alterations of charts and notices to mariners with such work as has been accomplished.

Dredging operations were also carried on at the following places, where an expenditure of \$10,000 or over was made:—

Nova Scotia.—Liverpool.

Prince Edward Island.—Bridgetown, and Rustico South.

New Brunswick.—Bathurst, Campbellton, St. John channel, St. John West, and Shippigan.

Quebec.—Ile aux Foins, Longueuil, Mission Point, and River St. Maurice.

Ontario.—Byng inlet, Hamilton, Midland, Port Burwell, and Port Stanley.

Manitoba.—Red river and Selkirk Slough.

British Columbia.—Fraser river (North Arm and Sandheads) and Skeena river.

PUBLIC BUILDINGS.

The sum expended on construction, maintenance and repairs of public buildings throughout the Dominion was \$5,843,288.72, which is approximately the amount which was expended during the previous fiscal year. Of this amount, \$2,674,855.88 was expended in the construction and improvement of public buildings; and \$3,168,432.84 in repairs and maintenance.

The following buildings were completed during the year:—

Quebec.—Quebec post office—Minor works were executed to complete the main contract. Partitions were erected to form offices for the Military Service Act officials. Installation of tower clock and post office fittings.

Ontario.—Kingston—Erection of gymnasium at Royal Military College. Trenton—Alterations and additions to post office and post office fittings and new floor in lobby.

Manitoba.—Winnipeg—Alterations to Immigration Hall for Postal Station "A."

Saskatchewan.—Regina—Alterations to Royal Bank building and Customs Express building.

The following buildings were still under contract at the close of the fiscal year:—

Nova Scotia.—Halifax barracks on north common.

Quebec.—Three Rivers public building.

Ontario.—Ottawa Parliament buildings.

Alberta.—Calgary drill hall.

Owing to the shortage of anthracite coal last winter, in order to conserve this class of fuel as much as possible and with a view to setting an example to large private users the department made changes in many of the furnaces in public buildings situated in the Maritime Provinces and in the West so that local or bituminous coal might be used for heating. In this way, a very considerable quantity of anthracite coal was saved for domestic consumption. The results in the public buildings were generally satisfactory, although the soft coal required much closer attention and more careful firing than the anthracite.

The department was very fortunate in not having much damage done to the public buildings in the city of Halifax when the terrible explosion took place in the harbour on the 6th of December, 1917. Outside the roof of the drill hall being

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wrecked, the post office and Customs buildings suffered only from broken windows and temporary dislocation of portions of the heating apparatus all of which was promptly repaired.

RECONSTRUCTION OF PARLIAMENT BUILDINGS, OTTAWA.

The progress made with the reconstruction of the Parliament buildings during the past year has been exceptional, and it may safely be said that a record has been set in its rapid construction. At the same time, the work is of the highest quality, in keeping with a national undertaking of this character.

On April 2, general building operations were resumed for the season of 1917, the masonry of the interior walls on the Senate wing being two storeys high, and an average of four feet above ground level for the balance of the building.

When masonry work was discontinued on December 18, 1917, all exterior and court walls had been completed to the main cornice or roof level; leaving the stone work of the four north ventilating towers, the front pavilions, the chimneys and the pent-houses above the roof to complete the exterior masonry.

The main tower was not proceeded with last year, the contractor devoting his energies to getting the building under roof before winter.

Structural steel-work, which was well started at the opening of 1917, has been completed, excepting minor sections such as pavilion and tower roofs, miscellaneous beams for stair landings, etc.

The sloping roofs are being constructed of Flex-or-Crete, a fireproof concrete nailing composition, while the flat roofs or decks are of terra-cotta arch tile. These sloping roofs have been completed with the exception of the Commons roof, which could not be placed on account of the early frost, while the roofs of the towers and pavilions cannot be constructed till the masonry walls of same are finished.

The terra-cotta arching of the flat roofs has been set, and the placing of the copper and tar and gravel roof covering will be proceeded with as weather conditions permit.

The setting of the terra-cotta arches for the floors of the building was commenced September 25, 1917, and approximately 80 per cent of this work has been completed.

The excavation for the foundations of the central heating plant is well advanced, and the concrete foundations for the north wall of this building have been placed.

Labour conditions have been generally satisfactory, the average daily force on this work for the year 1917 being 495 men.

During 1917, there were fourteen meetings of the Joint Parliamentary Committee and fifteen meetings of the board on the reconstruction work; also meetings of the Speakers, Senators, and Chairmen of the House Committees to discuss the general works of this building and arrangement of accommodation.

The expenditure on the work to March 31, 1918, amounted to \$2,774,873.18.

In addition to the contracts mentioned in last year's report, the P. Lyall & Sons Construction Company, Limited, as general contractors for this work have, with the approval of the Joint Parliamentary Committee, entered into the following sub-contracts since the first of April, 1917:—

On April 25, 1917, the board authorized a contract for sand with R. R. Foster, Ottawa, Ont., for 5,584 cubic yards of sand at 77½ cents per cubic yard.

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On April 27, 1917, the Joint Parliamentary Committee authorized that contracts be made for the terra-cotta fireproofing required for the work with the National Fireproofing Company of Canada, for \$104,473.75, the Sun Brick Company for \$17,337.50, and the Montreal Terra Cotta Company for \$14,102.50. These are being executed.

On May 1, 1917, with the Estate of James Davidson, Ottawa, for 5,000 pieces of 2-inch by 10-inch by 16-foot merchantable spruce plank, delivered on the site for \$39 per 1,000 ft. b.m.

Under date of July 20, 1917, a contract was executed with the National Brick Company of Laprairie, Limited, for the supply of 5,000,000 common brick at \$12 per thousand, delivered on the site, as authorized by the joint committee on July 18, 1917. This contract has been fulfilled.

Under date of July 23, 1917, a contract was executed with the Wallace Sandstone Quarries, Limited, of Winnipeg, Man., for the supply of 154,000 cubic feet of Tyndall limestone at \$1.02 per cubic foot f.o.b. cars, Ottawa, as per the authorization of the joint committee of February 7. In reality, this contract was not approved or executed till September 19, 1917; 38,602 cubic feet have been delivered on this contract.

Under date of August 24, 1917, a contract was executed with the Canada Cement Company for 33,000 barrels of cement, at \$2.18½ per barrel f.o.b. cars plant, freight to Ottawa allowed and deducted from the above price with the Canada Cement Company, as authorized by the joint committee on August 22, 1917.

Under date of August 27, 1917, a contract was executed with the Missisquoi Quarries, Limited, Montreal, for the supply of 7,300 cubic feet of grey marble, sawn in 8-inch to 9-inch thickness, sawn two faces, from 8 feet to 9 feet long and 5 feet to 5 feet wide, at \$3.20 per cubic foot; 2,500 superficial feet of 3-inch flag slabs, finished ready to set in position in sizes up to 8 feet by 3 feet to 4 feet for \$1.20 per square foot; 71,000 square feet of 2-inch flag slabs, as above, in sizes 3 feet 6 inches to 4 feet by 1 foot 9 inches to 2 feet, for 87 cents per square foot; 25,000 square feet of Missisquoi black marble, finished 1½-inch thick with "hone finish," cut as required, for 87 cents per square foot. All the above f.o.b. cars Ottawa, as authorized by the joint committee, August 22, 1917.

Under date of August 28, 1917, a contract was executed with Dartnell, Limited, Montreal, for the supply of 3,800 quoins, at \$122.50 per thousand; 19,000 headers at \$106 per thousand, and 37,700 stretchers at \$106 per thousand, the same to be No. 1 quality, American-made enamel brick, English size, manufactured by the Andrew Ramsay Company, of Mount Savage, Maryland, as authorized by the joint committee on August 22, 1917. It was found necessary, however, to cancel this contract on November 9, as the manufacturer could not make the deliveries required to permit the closing in of the building before the end of the season and as the works were being seriously delayed thereby an order was placed with the Don Valley Brick Works, Toronto, to supply, from stock, the balance required.

Under date of September 20, 1917, a contract was executed with the Trussed Concrete Steel Company of Canada, Limited, Montreal, for the supply of 157,000 square feet (more or less) of 24-gauge Hy-Rib at 10½ cents per square foot, delivered on the site, as authorized by the joint committee on September 18, 1917. This contract has been completed.

Under date of September 20, 1917, a contract was executed with W. J. McGuire, Limited, Toronto, for the plumbing, pipes and fixtures of this building, at \$129,900, as authorized by the joint committee on September 18, 1917.

Under date of September 25, 1917, a contract was executed with the Flexner-Taylor Company of South Boston, Mass., for the supply of 300 tons (more or less) of Heavy Cast, at \$25 per ton, delivered on the site, as authorized by the joint committee on September 18, 1917.

Under date of September 25, 1917, a contract was executed with W. E. Dillon Company, Toronto, for the roofing and sheet metal work of this building, for the sum of \$76,100, as authorized by the joint committee on September 20, 1917.

Under date of January 11, 1918, a contract was executed with the Canadian General Electric Company of Canada, Limited, for electric conduit and fittings, amounting to \$27,435.35, as authorized by the joint committee on January 8, 1918.

Under date of January 11, 1918, a contract was executed with the Northern Electric Company, Limited, for electric fittings and outlet boxes, amounting to \$3,106.09, as authorized by the joint committee on January 8, 1918.

Under date of March 25, 1918, a contract was executed with W. G. Edge, Limited, Ottawa, for the heating and ventilating work, amounting to \$386,000, as authorized by the joint committee on March 21, 1918.

Under date of March 25, 1918, a contract was executed with the Otis-Fensom Elevator Company, Limited, for the supply and installation of two Otis-Standard No. 17-33, I-1, gearless traction type electric passenger elevators, for the Senate and House of Commons office blocks, amounting to \$31,940, as authorized by the joint committee on March 21, 1918.

In commemoration of the fiftieth anniversary of Confederation and in dedication of this building by the Parliament and people of Canada, the central column upholding the ceiling of the main entrance hall was unveiled by His Excellency the Governor General at noon, Monday, July 2, with impressive ceremonies. Addresses were given by the Right Honourable Sir Robert Borden, G.C.M.G., P.C., and the Right Honourable Sir Wilfrid Laurier, G.C.M.G., P.C. The event was epochal in the history of Canada.

1867 JULY 1917

ON THE FIFTIETH
ANNIVERSARY OF THE CONFEDERATION
OF BRITISH COLONIES IN NORTH AMERICA
AS
THE DOMINION OF CANADA
THE PARLIAMENT AND PEOPLE
DEDICATE THIS BUILDING
IN PROCESS OF RECONSTRUCTION
AFTER DAMAGE BY FIRE
AS A MEMORIAL OF
THE DEEDS OF THEIR FOREFATHERS
AND OF THE VALOUR OF THOSE
CANADIANS
WHO IN THE GREAT WAR FOUGHT FOR THE
LIBERTIES OF CANADA
OF THE EMPIRE
AND OF
HUMANITY

The selection of the axial column of the Parliament building of the Dominion as the form of the memorial, was most appropriate and significant.

TELEGRAPHS.

During the year there have been added thirty-one miles of new line in the province of British Columbia, as follows:—

	Miles.
Kamloops-Mount Olle	2
" Savona	1
" Notch Hill	11
Hesley Creek-Upper Louis Creek.. . . .	8
Merritt-Camford	7
Golden-Windermere	2
Total	31

There is now a total mileage of 12,047½, and the offices number 1,106. The messages sent during the year aggregated 443,806, as against 411,934 during the preceding fiscal year. The expenditure was \$751,451.48 as against \$775,339.66 in the previous year, and the revenue showed an increase of \$13,424.08 over 1916-17.

The telephone, telegraph and conjoint offices on the system are as follows:—

Telephone	665
Telegraph	389
Conjoint	52
Total	1,106

NATIONAL GALLERY.

The National Gallery being still without premises for the exhibition of its national collection of works of art, has continued to concentrate its energies upon the development of its policy of loan exhibitions to any art gallery or body which has proper facilities for exhibiting them, and it is believed that this policy is having a direct and important bearing upon the establishment of schools of art and design throughout the country. Its popularity is evidenced by the rapidly increasing application for these exhibitions, and without new purchases it will shortly become impossible to meet all requests.

Regular annual loans of works of art were sent out during the year to St. John, N.B., Sherbrooke, Que., Fort William, Ont., Winnipeg, Man., Regina and Moosejaw, Sask.; and special exhibitions were arranged for Halifax, N.S., Montreal, Que., Art Association, Ottawa-Central Canada Exhibition, Toronto Art Museum, and Western Canada Fair Association, the circuit including Calgary, Edmonton, Brandon, Regina, Saskatoon, and Prince Albert, also Vancouver, B.C. Twenty oil paintings were purchased from Canadian artists during the year.

Appended to this report will be found detailed reports from the different branches giving full particulars of the various works carried out by this department during the year.

I have the honour to be, sir,

Your obedient servant,

J. B. HUNTER,

Deputy Minister.

PUBLIC BUILDINGS.

BY R. C. WRIGHT, CHIEF ARCHITECT.

NOVA SCOTIA.

Repairs and improvements were executed on public buildings at the following places: Amherst, Antigonish, Annapolis, Arichat, Baddeck, Dartmouth, Digby, Guysborough, Glace Bay, Inverness, New Glasgow, Liverpool, Pictou, Parrsboro, Sydney, Sydney Mines, Springhill, Truro, Westville, Windsor, Wolfville, and Yarmouth.

At Halifax, the explosion of 6th December, 1917, in the harbour, did considerable damage to the public buildings; instructions were immediately issued to make the necessary repairs, and the buildings were placed in proper order.

PRINCE EDWARD ISLAND.

Charlottetown's old bank building and the Dominion building, Georgetown, Montague, Souris, Summerside, and Tignish public buildings.

NEW BRUNSWICK.

Bathurst, Campbellton, Chatham, Dalhousie, Fredericton, Grand Falls, Hampton, Hartland, Hillsboro, Marysville, Moncton, Newcastle, Richibucto, St. John, St. Stephen, Sussex, and Woodstock public buildings.

The difficulty of obtaining anthracite coal for use in the public buildings in the Maritime Provinces was overcome by changing many of the furnaces so that local bituminous coal could be utilized for heating.

QUEBEC.

Arthabaska, Coaticook, Drummondville, Dundee, Grosse Ile, Knowlton, Granby, Lachute, Longueuil, Magog, and Quebec.

Three Rivers: This building was described in the annual report for 1914. On the 9th of November, 1917, a contract for the fittings and furniture was entered into, which is now completed. Plans and specifications prepared by this department and work carried out under its supervision. Contractor for construction of building, Mr. Joseph Bourque. Contractor for fittings, the T. Shell Company. Work carried out under the supervision of Mr. Stephen Robitaille, of this department, Ottawa.

Quebec Post Office: The construction of this building, which was described in a previous report, is completed. A four-dial tower clock was placed in position, and in full working order. Construction of this building and the various works carried on at the other Quebec buildings were done under the supervision of Mr. Arthur Pouliot, Clerk of Works, Quebec.

ONTARIO.

Acton, Amherstburg, Aurora, Aylmer, Barrie, Belleville, Bowmanville, Bracebridge, Brantford, Bridgeburg, Cayuga, Chatham, Chesley, Clinton, Cobourg, Colling-

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wood, Dresden, Deseronto, Dundas, Elmira, Elora, Essex, Galt, Goderich, Grimsby, Guelph, Hamilton, Harriston, Ingersoll, Kincardine, Kitchener, Lakefield, Leamington, Lindsay, Listowel, London, Midland, Milverton, Mildmay, Mitchell, Mount Forest, Niagara Falls, North Bay, Orangeville, Orillia, Oshawa, Ottawa, Owen Sound, Palmerston, Paris, Parkhill, Peterboro, Petrolea, Picton, Port Hope, Preston, Sandwich, Sarnia, Seaforth, Simcoe, Shelburne, Steelton, Stratford, Strathroy, St. Catharines, St. Thomas, Sudbury, Toronto, Walkerville, Walkerton, Welland, Whitby, Windsor, Wingham, and Woodstock public buildings.

Ottawa: Barns—A new wooden barn on a concrete foundation measuring 47 feet by 20 feet was erected adjoining the sheep sheds at the experimental farm.

A new flax barn was erected adjoining the main building, and measuring 47 feet by 30 feet.

Trenton: An addition to the rear of the building was constructed to provide additional accommodation for the post office.

ONTARIO.

Winnipeg buildings were repaired and improved.

SASKATCHEWAN.

Humboldt, Lloydminster, Maple Creek, Melfort, Moosejaw, North Battleford, Prince Albert, Regina, Saskatoon, Sutherland, Weyburn, and Yorkton public buildings.

ALBERTA.

Calgary, Edmonton, Grande Prairie, Lethbridge, Medicine Hat, Red Deer, Strathcona, and Wetaskawin buildings.

BRITISH COLUMBIA.

Ashcroft, Atlin, Cedarvale, Chilliwack, Cloverdale, Comox, Coutts, Cranbrook, Cumberland, Douglas, Duncan, Fernie, Field, Glacier, Golden, Grand Forks, Greenwood, Kamloops, Ladysmith, Mission, Nanaimo, Nelson, New Westminster, North Vancouver, Port Alberni, Prince George, Princeton, Revelstoke, Rossland, Saanich, and Vernon buildings; postal stations A and B, old post office building, sub-postal stations A, B and C and immigration building at Vancouver; examining warehouse and observatory at Victoria, and the quarantine station at Williams Head.

YUKON.

Dawson public building was repaired.

HARBOUR WORKS.

By E. D. LAFLEUR, Chief Engineer.

NOVA SCOTIA.

CHESTER BASIN.

Dredging.

Chester Basin is a small town situated on the H. & S. W. railway on the shore of Chester basin.

During the fiscal year 1917-18, dredge No. 15 was in operation at this place. The work, which is the first done here, consisted of cutting a channel from the main channel in to the wharves, and dredging a channel along the front of the wharves for harbourage accommodation.

The area covered was 18,000 square feet, with an average cutting of 6.3 feet, giving an average depth at low water of 10 feet. The channel in to the wharves has a length of 170 feet and an average width of 44 feet, and the channel along the front of the wharves has a length of 218 feet and an average width of 48 feet. The material removed consisted of mud and gravel, with a place measurement of 4,200 cubic yards, and scow measurement of 5,570 cubic yards, showing an expansion factor of 32.6 per cent. Dredge No. 15 worked here from September 24 to Nov. 14.

CLEMENTSPORT.

Dredging.

Clementsport, Annapolis county, is a village situated on either side of the mouth of Moose river, on the eastern side of Annapolis basin.

In 1917-18, 5,182 cubic yards, place measurement, were removed, at a cost of \$2,110.70, from the left or south side of the channel immediately below the railway bridge. The work was begun on 3rd September and finished 24th November, 1917. It was all done by hand digging, at low water, the material being thrown on to a scow towed out about a mile to deep water, and dumped.

The digging is comprised within a total length of 600 feet by a maximum width of 100 feet; the depth of cut varies from 4 feet to 5 feet and the bottom of the cut is 6 feet above L.W.O.S.T., or 21 feet below H.W.O.S.T.

The excavated area will fill up by deposit of silt at a slow rate and should not require redredging for six or eight years.

EAST LA HAVÉ—REINHARDTS'.

Dredging.

Reinhardt's East La Have is situated on the western side of La Have river, about 12 miles south of the town of Bridgewater, Lunenburg county.

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Work was done at this place during the year 1917-18, by dredge No. 15, and is the first dredging done here by the department. A channel was taken out on each side of the wharf so that better accommodation would be available. The area covered was 4,500 square feet with an average cutting of $3\frac{1}{2}$ feet, giving an average depth of 6 feet below low water. The channel on the north side of the wharf has a length of 100 feet and a width of 30 feet, and the channel on the south side has a length of 50 feet with a width of 30 feet. The material removed consisted of mud and bricks. Place measurement, 590 cubic yards. The dredge was engaged here from November 17 to 27.

EAST MIDDLE LA HAVE.

Dredging.

East Middle La Have is a small farming and fishing district on the east side of the La Have river, about 9 miles from Bridgewater.

The work done by dredge No. 15 during the fiscal year 1917-18, consisted of the cutting of a basin in front of a wharf for the better landing of the steam packet which runs on the La Have river between Bridgewater and the several small villages on the river.

The area covered was 8,000 square feet with an average cutting of 4 feet, giving an average depth of 5 feet at L.W.O.S.T. The basin has a length of 110 feet and a width of 80 feet. The material removed consisted of mud and gravel, the place measurement being 1,200 cubic yards and the scow measurement 1,558 cubic yards, showing an expansion factor of 30 per cent. The dredge worked here from September 4 to September 18.

EAST RIVER.

(This work is described in the annual report for 1915.)

East river is the most easterly of the three branches of Pictou harbour. It is navigable for small vessels from opposite Pictou to the town of New Glasgow.

During the fiscal year 1917-18, the contract let to Messrs. McDougal Bros. was practically completed, the only work still to be done consists of binding several of the dolphins with $\frac{3}{4}$ -inch wire cable. The work consisted of unwatering, common and rock excavation, and timber approach piers.

In September, 1917, Messrs. Roger Miller & Sons, Ltd., finished their contract for the lock gates and operating machinery. The total expenditure on these two contract works amounted to \$583,230.35.

Dredging.

The East river is the most important of the three branches of Pictou Harbour. Since the inception of the work in 1908, the department hydraulic dredge No. 5 was employed, and the total amount removed to date is 2,972,228 cubic yards of clay, sand, gravel and shells. A detailed description of the whole project to that date is given on page 14 of the annual report for 1915.

During the past season, the dredge operated from June 23 to November 2, and excavated 290,700 cubic yards measured *in situ*. The material was principally soft alluvial clay with occasional areas of harder material near grade. The cutting was dredged to a depth of 21 feet below L.W.O.S.T. and to a width of 150 feet from stations 34+00 to stations 80+00 with the exception of some hard material between station 65+50 and 67+50 which the dredge could not remove.

This material consists of 2,400 cubic yards *in situ*, or 3,120 scow measurement, of tenacious clay that will require a dipper dredge to excavate. This, in addition to some

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overlying soft material not removed by the dredge, will make a total of 5,620 cubic yards scow measurement to be dredged from that area.

In the second reach, station 120+00 to station 239+00 there yet remains 369,000 cubic yards of sedimentation to be removed from the cutting made in previous years.

INVERNESS.

Dredging.

Inverness, Inverness county, is an incorporated mining town situated on the north-western coast of Cape Breton island, about midway between the harbours of Mabou and Margaree, and 60 miles from Port Hastings, on the strait of Canso, with which it is connected by rail.

In April, 1917, the fishermen of Inverness asked the department for a channel across the beach, 15 feet wide in the bottom, and with a depth of one foot of water at low water or 5 feet at high water, to permit them to pass in and out of the harbour at least at half tide, but the channel asked for would extend beyond the protection of the eastern breakwater for a distance of 175 feet, and in order to protect this dredged channel, it was absolutely necessary to extend the eastern breakwater for that distance.

Instructions were received to excavate the channel; operations were commenced July 10, 1917, and continued when weather conditions permitted, until September 25, when the work was suspended.

The depth required was obtained throughout the length of the channel during the progress of the work, but the heavy seas washed the floating sand back into the channel, and on 26th September, when the final examination was made, it was found that the channel had an average depth of 1.2 feet *above low water* instead of one foot *below low water*; and as spring tides rise here 4 feet instead of having a depth of 5 feet at *high water*, as proposed, there were hardly 3 feet of water at that stage of the tide, and it will continue to shoal up until the channel is protected.

The amount of material removed on completion was found to be 3,155 cubic yards in place, without taking into consideration the amount of material removed and washed back into the cut.

The work was done by horses and scrapers.

LIVERPOOL.

Dredging.

Liverpool is a town situated at the mouth of the Mersey river. During the past fiscal year, dredge No. 7 removed 46,610 cubic yards, scow measurement. Work was commenced June 11, 1917, moved to Shelburne in September, and moved back to Liverpool, October 17, and continued operations until November 30, 1917.

From the bridge towards the mouth of the harbour for a distance of 1,110 feet, the nature of the material to be removed consists of mud and sawdust. For a further distance outwards of 1,034 feet the material consists of mud and sawdust mixed with fine white hard sand. In the last 1,089 feet of this channel, the bottom is composed entirely of fine, hard, white sand extremely difficult to remove with a ladder dredge. This dredging has been performed to a depth of 15 feet at L.W.O.S.T.

The bulk of the material removed during the last fiscal year came from that portion of the channel starting opposite the end of the marine slip and continuing seaward as far as the black buoy. A few scow loads at the latter end of the season were removed from the upper portion of the harbour at its northern side. This latter part of the work was 400 feet long and 100 feet wide, the main portion of the dredging over the bar had a common width of 150 feet and a length of about 1,750 feet to a depth of 15 feet at L.W.O.S.T.

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Included in the above is the amount of dredging performed in improving a branch channel for the accommodation of new vessels which require launching. 1,200 cubic yards of mud and sawdust, scow measurement, were removed on June 22 and 23, a large portion of which has since filled up.

This branch channel was about 120 feet in length, 50 feet wide, with an average cut of 5 feet.

PARKS CREEK.

Dredging.

Parks creek (Conrads') is on the east side of the La Have river, about 12 miles from Bridgewater.

During the fiscal year 1917-1918, dredge No. 15 worked at this place, cutting a channel into the wharf to give better accommodation for boats of deeper draught and to enable the steam packet *La Have* to make a landing. The area covered was 8,400 square feet with an average cutting of 4.3, giving an average depth at low water of 10 feet. The channel has an average length of 120 feet and an average width of 70 feet. The material taken out consisted of mud and small boulders, the place measurement being 1,338 cubic yards and the scow measurement 1,739 yards, showing an expansion factor of 30 per cent.

The dredge was employed from August 10 to August 30.

ST. PETERS NARROWS.

Dredging.

St. Peters narrows, Richmond county, are situated on the southern end of the Bras d'Or lakes, and, together with the St. Peters canal, form the connecting link for navigation between the lakes and the Atlantic ocean on the south.

Owing to the crookedness and narrowness of the navigable channel between the islands forming the narrows, the vessels approaching and leaving the canal from and for the Bras d'Or lakes, were frequently delayed by high winds in the channel, and in order to avoid dangers and delays, it was deemed advisable to improve the navigation through the narrows by widening and straightening the navigable channel at the worst points, and to deepen it to 18 feet at low lake level, which is the depth available in the canal.

The full scheme for the improvement of navigation in the narrows, involved the removal of 95,190 cubic yards in place at different points, but owing to the large amount of work to be done to effect the whole improvement, it was deemed advisable to remove, at present, only the most dangerous points, which were between the south-eastern end of Beaver island and the mainland.

The contract for the improvement of the channel involving the removal of 30,723 cubic yards of mud and clay in place, off two points, and over an area of about 118,700 square feet, was awarded to the Coastal Dredging and Construction Company of Sydney, N.S., at the rate of 28 cents per cubic yard in place.

Operations were commenced May 2, 1917, and completed in a very satisfactory manner and in accordance with the terms and spirit of the contract on 12th July following.

The full depth of 18 feet at low lake level in a width of 400 feet in the bottom, was obtained, and the amount of material removed was found to be as follows:

9,553 cubic yards of class "B" material in place at 28 cents...	\$8,554 84
15 " " " "A" " " 45. " " " "	75 00
	<hr/>
	\$8,629 84

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The dredged area was thoroughly swept after the completion of the work, and the full depth of 18 feet at low lake level was obtained everywhere.

SHELBURNE.

Dredging.

Shelburne is a town situated 70 miles northeast of Yarmouth and about 110 miles southwest of Halifax.

During the last fiscal year, dredge No. 7 removed 4,780 cubic yards, scow measurement, of material from portions of the upper part of Shelburne harbour. Work was commenced on September 24 and completed October 17, 1917. The dredging consisted of the removal of mud and some small rocks from the channel and approach to the McKay shipyard, situated at the extreme head of the harbour. The length of the cutting was 445 feet, the portion opposite the launchway being 100 feet long by 150 feet wide, whilst the remaining 335 feet in length was 50 feet width. Different portions of this channel and approach were dredged to a depth varying from 5 feet to 8 feet at L.W.O.S.T. The depth obtained was the greatest that could be practically gotten in the different sections, owing to fact that absolute hard rock bottom lies immediately underneath, but dredging was done in the channel opposite wharf of I. Clow; the frontage between his place and G. A. Cox's wharf; opposite Mr. Cox's wharves; and, at the request of the Shelburne Ship Builders, Ltd., tried to assist that enterprise by dredging in front of their shipyard; here we found an absolute ledge of rock after we had succeeded in removing about 80 yards of round cobble stones. The material in these latter places, from Clow's wharf to the Shelburne Ship Builders yard consisted of a hard clay formation, interspersed with small rocks varying in size from a diameter of three inches to one foot. Below this stratum, which in no place exceeded a foot in thickness, we found soft mud, but with the ladder dredge it was particularly difficult to penetrate the top stratum.

WEST DUBLIN.

Dredging.

West Dublin is an important fishing and farming district in Lunenburg county, about 14 miles from Bridgewater on the west side and near the mouth of the La Have river.

During the fiscal year 1916-17, the departmental dredge No. 15 removed 1,956 cubic yards scow measurement or 1,505 yards place measurement showing an expansion factor of 30 per cent. The work consisted of dredging a channel along the front of the wharves about 275 feet in length, having an average width of 30 feet.

During the fiscal year 1917-18, the work consisted of the cutting of a channel by dredge No. 15, from deep water into and along the front of the wharves. The area covered was 15,400 square feet, with an average cutting $3\frac{1}{2}$ feet, giving an average depth at low water of $4\frac{1}{2}$ feet. The channel has a length of 376 feet and an average width of 41 feet. The material consisted of mud, the place measurement removed being 1,985 cubic yards and scow measurement, 2,881 yards, giving an expansion factor of 30 per cent. The total cost in this fiscal year was \$1,345.94, the dredge working here from July 9 to August 4.

YARMOUTH.

(This work is described in the annual report for 1915.)

Yarmouth Bar. Yarmouth harbour, lies about NNE. and SSW. (true), and from the upper wharves to the mouth of the harbour is nearly 4 miles.

In 1917-18, the sum of \$553.37 was expended in minor repairs to a number of places in the 1,700 feet in length of beach protection, damaged by storms.

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YARMOUTH.

Dredging.

In 1917-18, the dredge *Canada*, No. 7, removed 815 cubic yards, scow measurement, 649 cubic yards, place measurement, towed $2\frac{1}{2}$ miles. The work done consists in the widening of the turning berth opposite the Evangeline wharf, belonging to the D. A. Ry., at which the Boston steamers lie. Dredging was begun 7th January, and stopped 19th January, 1918, owing to ice conditions, which were unprecedentedly severe.

The dredging was comprised within a maximum length of 200 feet, by a maximum width of 50 feet; the maximum depth of cut was about 20 feet and the bottom of the cutting had a varying depth below L.W.O.S.T. of a maximum of 18 feet.

PRINCE EDWARD ISLAND.

ALBERTON.

Dredging.

(This work is described in the annual report for 1915.)

The village of Alberton, Prince Albert county, is situated on the northeast coast of the island at Casumpeque harbour, about 55 miles by rail from Summerside.

While a depth of 10 feet at low water was carried on channel face of the wharf, the area immediately inward of the pierhead was available only for very small boats, being about dry at low tide. In order to provide further shipping accommodation the forming of berths on either side at the outer end of the wharf was authorized, each to have a length of 185 feet and average width of 80 feet, grading in depth from 10 feet up to 5 feet at their inner end at low water spring tides. Work was commenced November 3 by D. P. W. dredge No. 11 and when suspended, November 20, a berth had been formed on the southern side of the wharf immediately inward of the southern "L"; it has a length of 90 feet and width of about 75 feet carrying an average depth of 7 feet at low water spring tides, providing sufficient protection and shelter for wintering the plant in safety.

The quantity of material removed between the above dates was 2,200 cubic yards, scow, and 1,500 cubic yards, place measurement, of overcasting, which consisted principally of mud and hard sand, all overcasting being dredged and scowed away.

BEACH POINT.

Dredging.

Beach point, Kings county, is situated on the south side of the entrance into Murray harbour. From the "point" a sand and mud spit, which is dry at low water, extends in a westerly direction along the edge of the channel a distance of about one mile and encloses between it and the shore a basin having a depth of from $1\frac{1}{2}$ to 3 feet at low water, affording good shelter and anchorage for fishing boats. To make this shelter available at all stages of the tide, a small channel was dredged during seasons of 1904 and 1905 from the deep water outside into the basin a distance of about 400 feet. As this channel has been found inadequate, further dredging improvements were commenced by "D.P.W." dredge No. 9 August 20 and carried on until November 1, when it was required to take up winter quarters. During this period, 12,068 cubic yards, scow, and 13,600 cubic yards place measurement overcasting of sand and mud were removed; practically all of the overcasting being redredged and scowed away.

The improvements undertaken consist of forming a new channel to carry 7 feet at low water spring tides about 400 feet to the westward of the old cut and having a

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total length of 950 feet, including turning basin at inner end, 250 feet in length, parallel to the shore; the width of approach from deep water to the basin being from 60 to 65 feet. When operations were suspended, November 3, about 400 feet of the approach was completed to the depth required.

BRIDGETOWN.

Dredging.

(This work is described in the annual report for 1916.)

The village of Bridgetown is situated at the head of navigation on the Grand or Boughton river, Kings county.

Work was commenced May 21, 1917, and carried on continuously until July 28 when satisfactorily completed; the quantity of material removed was 33,700 cubic yards, scow measurement, of principally soft mud. The improvements made covering the three seasons involving the removal of 57,600 cubic yards, consisted of deepening and straightening the channel from about 1,200 feet below Robertson's creek up to the wharves just below the village a distance of 5,050 feet, the width of cut being 70 feet with exception of the upper 500 feet which was made 100 feet wide to form a turning basin. The average depth carried over all the work on completion was 9 feet at low water spring tides, which here have a range of 5 feet.

McPHERSON'S COVE.

(This work is described in the annual report for 1916.)

McPherson's cove, Kings county, is situated on the south side of the Grand or Boughton river, a short distance within its entrance into Boughton bay.

During the past season some slight settlement caused by storms to the roadway approach was made up with broken stone; commenced work September 22, and completed 29.

Dredging.

To facilitate shipments some improvement has recently been made in size and depth of berths on each side of the pierhead, D.P.W. dredge No. 9 working from July 30 to August 8, removing in that time 4,100 cubic yards, scow measurement, of mud. During progress of work, it was necessary to overcast 400 cubic yards, place measurement, in order to obtain flotation for the plant; this material being afterwards redredged and scowed away. The work done consisted in cleaning up shipping berths on either side of the pierhead, each berth having a length of 100 feet; their entrance being "bellmouthed" to a width of 90 feet in line with outer end of wharf, thence narrowing down to 30 feet at inner end; the depth made grading from 10 feet up to 7½ feet at low water spring tides.

RUSTICO.

(This work is described in the annual report for 1909.)

Rustico harbour is situated on the north coast of Prince Edward Island, about midway between North point and East point, and 9 miles northerly by road from Hunter river, the nearest station on line of the Prince Edward Island railway.

Some strengthening of the beach protection work, situated immediately within the harbour entrance near the back range light, was commenced August 7, satisfactorily completed September 15, and consisted of driving twenty piles along the channel face of the work and making up some small settlement which had occurred in the brush and stone filling.

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RUSTICO.

Dredging.

Owing to the shoal depth of water carried over the greater portion of Gauthier's creek, only the smallest class of fishing boats could reach the village at low water. In order to make the head of the creek accessible at all stages of the tide, improvements of the channel approach thereto were commenced by the departmental dredge No. 11, October 26, 1916, but shortly afterwards suspended owing to the plant being ordered into winter quarters. Operations were, however, resumed again May 31, 1917, and carried through to a satisfactory completion, October 17; the quantity of material removed during this time was 29,275 cubic yards, scow measurement, of principally mud, sand, and brick clay. To facilitate the working of the plant in front of the fishing stages at upper end of cut it was necessary to overcast 3,080 cubic yards, place measurement, of mud, about half of which being afterwards redredged and scowed away.

The work done covering the two seasons consisted of forming a channel through the flats from point where abandoned in 1891 up to a small basin near the fishing stages below the village. This channel has a length of 2,350 feet and width of 60 feet, carrying on completion 8 feet at low water spring tides.

Improvement was also made in depth of water along the outer end of fishing stages located at the head of the creek for a distance of 500 feet, the depth now available being not less than 4½ feet off any stage; while the turning basin adjoining was enlarged and deepened to an average of 7 feet at low water spring tides.

Included in the above quantity is 700 cubic yards, scow, and 300 cubic yards, place measurement, overcasting, of hard sand, removed to form berths for small vessels in front of a beach protection work 200 feet in length, situated just within the harbour entrance. The dredge was employed at this work from July 17 to 20; the depth made being 9 feet at low water spring tides.

Some silting in may be expected from time to time, particularly in front of the stages where the material excavated was very soft.

Before the dredge left Rustico authority was given to clean up the area in front of Mr. Joseph Gallant's wharf, which is situated about 2½ miles in a southwesterly direction from the harbour entrance at the village of Rusticoville. The dredge operated here four days, October 23 to 26, removing 700 cubic yards, scow measurement, of mud and sand. The berth formed has a length of 150 feet and average width of 40 feet, carrying a depth of 8 feet at low water spring tides.

NEW BRUNSWICK.

BASS RIVER.

The Bass river is a small tributary of the Richibucto from the west, and enters the latter about 20 miles above its mouth.

Between the 10th and 16th July, 1917, a small landing wharf was built at Bass river at the head of navigation and about 3 miles above its junction with the Richi-

The landing is constructed of cribwork 8 feet wide with a frontage of 75 feet and wings extending shorewards 25 feet at each end. The interior is filled and surfaced with ballast and earth and behind the landing an area about 75 to 125 feet wide and extending back about 160 feet to high ground was graded with 2 to 3 feet of brush and about 1½ feet of earth. The lower side of this area was protected by a single face timber laid over sills and with several short cross-ties on top embedded in the fill.

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BATHURST.

(This work is described in the annual report for 1916.)

Bathurst, the shire town of Gloucester county, is situated on the south shore of Chaleur bay.

On the main or Nipisiguit channel, about 3.6 miles long from the harbour entrance to the berth and turning basin at the pulp mill, the required width of cut is 200 feet, increased to 300 and 350 feet at the turns, and depth 17 feet at low water.

The turning basin and berth together will have an average width of 450 feet, length of 900 feet and depth of 21 feet at low water.

Dredging is also required in the branch channel at the Gloucester Lumber and Trading Company's and the Geo. Eddy Company's wharves where the proposed cut is 100 feet wide, 2,000 feet long and 12 feet deep at low water; and in the middle river channel about one mile long past the Bathurst Lumber Company's wharves in Bathurst village to the departmental wharf, where 15 feet at low water is required.

The cut across the outer bar is about 1.7 miles long of which the greater part has been dredged to the required width of 200 feet and depth of 17 feet at low water. On this section and also in the main channel inside the harbour a final depth of 25 feet at low water is called for.

Dredge *P.W.D. No. 2* was at work in the past season between 13th October and 7th November on the Nipisiguit bar in the middle river channel, where about 12,600 cubic yards of sand and clay were removed in deepening a section about 500 feet long and 100 feet wide about 1,600 feet above the Forks, where previously were depths of about 10 to 13 feet.

Dredge *P.W.D. No. 3* was at work between 28th August and 27th September and on the 2nd, 3rd, 12th and 13th October on the Ripple and Ballast bars, in general removing sand and gravel, to the extent of about 29,176 cubic yards, accumulated since the dredging was previously done here.

This dredge worked on the Outer bar between 29th May and 27th August, on the 26th and 29th September, and between 5th and 9th and 13th and 16th October, removing about 85,221 cubic yards of sand and gravel, covering the greater part of the channel across the bar and deepening the outer 4,000 feet where filling-in had occurred.

The limiting depth in the channel is now about 14½ feet.

The total quantity removed during the fiscal year was about 126,997 cubic yards barge measurement.

CAMPELLTON.

Dredging.

Campbellton is situated on the south shore of the Restigouche river about 16 miles above the mouth.

At the deep-water wharves, where berths with 22 feet at low water ordinary spring tides are required to enable lumber steamers to lie afloat and take full loads, dredge *P.W.D. No. 2* was at work between 9th July and 10th August and between 13th and 15th, and 17th and 25th September, 1917, when a total of 27,350 cubic yards barge measurement was removed. The berth on the outside of the wharves was dredged to about 20 to 22 feet at low water for a length of about 900 feet and width of about 100 feet, and the inside berth was dredged to 19 to 22 feet, for a length of 650 feet and width of 50 to 75 feet.

The material was mud, sand, and gravel.

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CHURCH RIVER.

Dredging.

The Church river enters Miramichi bay about 24 miles northeast of Chatham.

A contract was entered into on August 9, 1916, with Mr. F. A. Fowlie for the removal of 14,000 cubic yards barge measurement, at the rate of 35½ cents per cubic yard, in dredging cuts 40 feet wide to 3 feet at low water across the lower shoal and to 2½ feet across the upper shoal. The length of the two cuts was 600 feet and 2,330 feet respectively.

During 1916, 6,568.9 cubic yards were removed in making a cut about 1,900 feet long across the upper shoal.

Dredging was in progress between 23rd May and 2nd August, 1917, when the work was completed.

A total of 14,421.7 cubic yards, barge measurement, was removed, from which a deduction of 311.7 cubic yards was made for dredging below subgrade.

The total place measurement quantity was 12,783.3 cubic yards and the expansion factor was 15.4 per cent in the work of the first season and 27.85 per cent during 1917.

FORD'S MILLS.

Dredging.

Ford's Mills is a farming and lumbering settlement at the head of navigation on the Coal branch, a tributary of the Richibucto river.

Between 17th October and 13th November, 1917, the shoal section was dredged by day labour, a small orange-peel dredge *Farmer's Friend* being procured from the Walsford Agricultural Society at a rental of \$14 per day, including wages of engineer and cost of gasoline, oil, and repairs.

A cut was made about 315 feet long, 20 feet wide and 1 to 1½ feet deep across a sand bar or shoal at the lower end, and in a length of about 1,250 feet at and below the landing. Shoal sections were dredged and a large amount of slabs and other mill refuse, etc., was removed leaving a channel about 20 feet wide with a depth of 1 to 1½ feet at low water, giving sufficient width for the scows and depth at half tide and over.

The material was cast over, being deposited on a scow by the dredge bucket and shovelled off at the opposite side to keep it far enough from the cut.

KOUCHIBOUGUAC RIVER.

Dredging.

The Kouchibouguac river enters the gulf of St. Lawrence about 12 miles north of Richibucto.

Between 17th September and 6th October, work was in progress to reduce a bar below a dam about 9 miles above the mouth which had an area of about 80 by 100 feet and was lowered about 2 to 3 feet.

The dredge used was the *St. Louis Star*, belonging to the St. Louis Agricultural Society, for which a rental of \$15 per day, including wages of engineer and cost of gasoline, oil, etc., was paid.

MIDDLE ISLAND.

Dredging.

Middle island is the quarantine station for the Miramichi river, and lies opposite the lower end of the town of Chatham.

In order to give a sufficient channel between the island and the mainland for the

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small motor-boat used by the quarantine officer and the caretaker, dredging was authorized under an agreement with Mr. Peter England, and was undertaken between 6th and 20th June, when a total of 2,003.1 cubic yards barge measurement was removed with the dredge *Peter England* at the rate of 40 cents per cubic yard barge measurement. The material was mud, firm clay, gravel, etc.

A cut was made about 600 feet long, 20 feet wide and with 2 to 3 feet at low water where was previously a least depth of about 1 foot.

The approach to and berth at the wharf formerly dry or nearly dry at low water were deepened about a foot in a width of 20 to 30 feet and length of about 150 feet.

MOULIES RIVER.

Moulies river, Kent county, is a small branch of the Richibucto, entering the latter from the west about 17 miles above its mouth. It is navigable for small boats and scows for about three miles.

Between 4th and 18th September, 1917, a small wharf, to be used as a landing place and storage ground for shell mud, was constructed at the lower side of a highway bridge at the head of navigation on the Moulies river.

The landing has a frontage of 95 feet, and consists of cribwork 8 feet wide with a wing of the same extending 50 feet to the shore at the lower side.

The cribwork is filled with stone and surfaced with earth and the area behind the cribwork is graded with earth and gravel.

The expenditure for the fiscal year 1917-18, was \$293.52.

RESTIGOUCHE RIVER.

Ship Channel.

On 26th and 27th September dredge *P. W. D. No. 2* removed about 1,200 cubic yards from the channel on the range of the Campbellton lights, about one-half mile below the deepwater wharf.

The least depth on this range which embraces the upper 8,500 feet of the ship channel is now about $13\frac{1}{2}$ feet at low water.

Between 22nd October and 10th November, dredge *P.W.D. No. 3* worked on the Oak Point shoal, removing about 30,247 cubic yards, barge measurement, in a length of about 1,000 feet, giving depths of 16 to 18 feet where previously were about 14 to 17 feet at low water. The dredge did not, however, reach the turn to "The Traverse" or range of the Oak Point lights, where is now a least depth of $12\frac{1}{2}$ feet at low water, the limiting depth in the channel to Campbellton.

RICHIBUCTO CAPE.

Dredging.

Richibucto Cape is a fishing station and settlement on the Northumberland strait, about 6 miles south of the entrance to Richibucto harbour.

Since there is no natural harbour, a breakwater has been constructed giving a sheltered area of about 2.8 acres. Shoaling having occurred in the approach to the area inside the breakwater, dredging was undertaken by day labour between 9th July and 7th September, 1917, when areas about 200 feet square inside the pierhead and 70 feet square at the entrance, where were previously depths of from 1 foot above to 1 foot below low water, ordinary spring tides, were deepened to $2\frac{1}{2}$ to $3\frac{1}{2}$ feet at low water.

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The clam shell dredge *Excavator* and two scows belonging to the McLaughlan Co., Ltd., of Buctouche, were employed at a rental of \$21 per day, including wages of engineer and cost of gasoline, oil, and repairs.

The total quantity removed was 5,071 cubic yards, barge measurement, and 100 cubic yards overcast, and the cost was 29 cents per cubic yard, barge measurement.

ST. CHARLES RIVER.

Dredging.

The St. Charles or Big Aldouane river flows into the northwest arm of Richibucto harbour about 4 miles northwest of Richibucto.

Work was in progress by day labour between 9th and 31st October, 1917, when cuts 9 inches to 2 feet deep and 12 to 15 feet wide were made in a total length of about 1,365 feet across several shoal sections of the river channel and in the approach to the lower landing or Gray's wharf (so called). The material removed, consisting of sand and mud, amounted to 1,265 cubic yards, and the cost per cubic yard was 38 cents.

A small orange-peel dredge, *The St. Charles River*, belonging to the local Agricultural Society, was employed on the work at a rental of \$15 per day, including wages of engineer and cost of gasoline, oil, and repairs.

ST. JOHN HARBOUR.

Berth No. 16.

The contract for the erection of shed No. 16 was completed by the contractors early in June. The contract awarded Messrs. Kane & Ring on December 22, 1916, for 5,000 yards rock ballast to be placed in the rear of the wharf wall to counteract the reaction of the weight of concrete on cribwork, was also completed in June. Periodic observations of alignment and level are being taken along the concrete face of the wharf, and so far no further settlement has occurred.

Shed No. 16 is 788½ by 90 feet, and has a safe floor load of 400 pounds per square foot.

General repairs to wharves, etc.

On account of all structures in the harbour being of timber, the annual maintenance and repair is considerable. The repairs carried out during the season were: shed roofs, floating fenders, vertical fenders on wharves, etc.

Deep-water berths.

During the season, the deep-water berths in the harbour were dredged to a uniform depth of 32 feet. This was performed by contract, 17,159 cubic yards being removed at an expenditure of \$6,924.82.

Grain conveyor galleries, shed No. 5.

On the 13th June, a portion of shed No. 5, on which the grain conveyor galleries, erected in 1914, were placed, collapsed and wrecked about 300 feet of grain conveyor galleries. Work was immediately commenced to salvage as much as possible of the conveyor machinery.

On November 9, a contract was let to Messrs. Grant & Horne for the rebuilding of conveyor galleries, and the work of installing machinery was carried out by the department's forces, by day labour, under the supervision of the Metcalf Company of Montreal.

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Repairs to sheds 14 and 15.

During extreme high tides, accompanied by heavy winds, considerable loss and inconvenience has, in the past, been experienced at sheds Nos. 14 and 15, by the water washing over the berth on to the shed floor. To obviate this damage, the floor on both these sheds has been raised about 6 inches. During two severe storms, since this work was completed, no inconvenience has been felt.

Platform No. 15 shed.

During the severe storm of October 30 and 31, about two hundred feet of platform, No. 15 berth, was torn up; this was replaced at an expenditure of \$660.50.

Fort Dufferin Breastworks.

Two severe storms in January and November, 1916, entirely destroyed two portions of the breastworks. Work of repair was started and was fairly well advanced when the heavy storm of October 30 and 31 last, washed away practically all the work under construction, in addition to about 163 feet of the existing work. One portion of the breastworks, about 110 feet in length, has been completed.

Negro Point Breakwater.

During the season, plans were prepared for the extension of the breakwater. Borings and investigations were made on Partridge island to ascertain if the rock was suitable for the breakwater. It was found that a considerable quantity of suitable rock could be obtained at this place, and the Common Council of the City of St. John, on the 30th January last, granted permission to obtain rock on the island.

PARTRIDGE ISLAND LOW-WATER LANDING.

Authority was given to rebuild the extension to the low-water landing which was constructed to facilitate the landing of passengers, chiefly military, at low stages of the tide; the work has been completed.

ST. NICHOLAS RIVER.

The South Branch is a small stream entering the St. Nicholas river, Kent county, about 4 miles above the mouth of the latter into the Richibucto.

Between 3rd and 17th and on 30th July, 1917, a small wharf was built near the head of navigation on the South branch, i.e., about one mile above its mouth.

The wharf is intended for the landing and storing of shell mud, dredged near the mouth of the river and used as a fertilizer, and is 72 feet long and 5 tiers high on the outer face, with wings carried shorewards about 25 feet; the cribwork of front and wings is 8 feet wide; a strip 14 to 15 feet wide along the front is planked, behind which the wharf is surfaced with gravel, and a right of way about 340 feet long to the public road was graded and fenced.

SHEDIAC BAY.

Dredging.

The site of the dredging is in the approach to the Grandigue wharf in Shediac bay or the northern end of Shediac harbour, 5 miles north of Shediac.

Dredging has been in progress in the last four years in the berths at and approach to the wharf, the total length of the latter being 2,750 feet.

To give a general width in the approach of 35 to 40 feet, a section about 1,300 feet long previously only about 18 feet wide was widened during the past season where the depth is about 5 to 6 feet at low water.

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Work was in progress in broken time between 17th September and 14th November, and the total quantity removed was 2,585 cubic yards barge measurement and the cost 40 cents per cubic yard. Material, mud.

SHIPPIGAN GULLY.

Dredging.

Two sharp bends in the channel inside the gully have made navigation difficult, therefore at different times dredging has been undertaken to give a straight course from the gully inwards towards Shippigan harbour.

During 1917 the removal of the outer point or bend was begun by dredge *P.W.D. No. 13*, an area about 550 by 75 feet being dredged to 9 to 10 feet at low water ordinary spring tides where the least depth previously was 4 to 5 feet.

The lower end of the channel across the inner bend was completed, an area about 600 feet long and 0 to 100 feet wide, starting about 1,300 feet inside the breakwater at the gully, being dredged to about 9 feet at low water. At the upper end of this channel, which has a total length of about 2,800 feet, two partial cuts were made through a shoal section about 1,000 feet long, the larger cut being about 700 feet long by 30 to 60 feet wide and the depth reached was about 8 to 9 feet.

Work was in progress between 9th July and 29th August and on scattered days when the weather permitted up to the 19th October.

The materials removed amounted to 25,662 cubic yards, barge measurement, of mud, sand, and gravel.

SHIPPIGAN HARBOUR.

Dredging.

Between 29th June and 6th July and, at different times between the 1st September and the 12th October, dredging was undertaken by dredge *P.W.D. No. 13* to deepen and extend the berths at the Shippigan public wharf which is situated at the terminus of the Caraquet railway, and 3 miles from Shippigan gully.

The berth along the inside of the pierhead, 75 feet long, was partly dredged to a width of about 45 feet, and beyond the pierhead a foundation for a proposed 100-foot extension and berth was dredged to 10 to 12 feet at low water. Dredging is still required for berths along the inside of the wharf shorewards of the pierhead for a total length of 260 feet.

Along the outer or southern side of the wharf, dredging was done in a length of about 370 feet and average width of about 80 feet to extend the berths shorewards. Dredging is still required close to the face of this section of the wharf which was close piled to prevent settlement of the blocks.

Depths of 7 to 8 feet were given where there was previously $\frac{1}{2}$ to 2 feet at low water.

The total quantity dredged was about 27,041 cubic yards of mud, which includes about 11,731 cubic yards overcast, much of which was afterwards removed in scows and is included twice in the larger figure.

QUEBEC.

BATHURST.

Dredging.

Bathurst is situated on the north shore of the river St. Lawrence, in the county of Champlain, 101 miles below Montreal.

During the summer 1915, a 12-foot entrance channel to the government wharf was dredged, and the object of the dredging undertaken last fall was to maintain at its

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original depth of 12 feet, the western branch of this entrance channel where filling in took place.

The work performed by La Cie Générale d'Entreprises Publiques, between October 13 and November 7, 1917, consisted in the removal, over an approximative area of 300,000 square feet, of 23,704 cubic yards of sand, scow measurement, at 18 cents a cubic yard.

CAUGHNAWAGA.

Caughnawaga, a post village in Laprairie county, is situated on the south shore of river St. Lawrence,

From September 17 to November 15, 1917, departmental dredge No. 119 removed some 2,561 cubic yards, scow measurement, in making a temporary channel, leading to government wharf, also removed a few stones in front of wharf.

Dimensions of work done: a channel 168 feet long, parallel with G.T.R. wharf, by 95 feet wide, average, to a depth of 9 feet below extreme low water level, or 0 foot gauge.

Hours of actual dredging, 260½; cut from 15 to 18 feet wide; face removed from 1.6 to 6 feet; distance advanced, 1,474 feet; dumping ground within 1 mile, in a deep place, in river St. Lawrence, opposite Caughnawaga.

CHICOUTIMI.

Dredging.

The dredging between Ste. Anne and Chicoutimi was done by the departmental plant "Steam Derrick."

The object of work is to allow the ferry plying half hourly between Ste. Anne and Chicoutimi, to fulfil the service at any stage of tide.

During the present fiscal year, only 2,680 cubic yards of clay and boulders have been removed near the Basin wharf; more attention was given to the removal of big boulders obstructing the channel on the Chicoutimi side, and near the Ste. Anne where 593 cubic yards of boulders have been removed.

The work consists in the dredging of a channel giving 6 feet of water across the Saguenay between Ste. Anne and Chicoutimi basin wharves.

CONTRECEUR.

Contreœur is an incorporated village and station in Chambly-Verchères county, on the south shore of river St. Lawrence.

From 25th May to 29th June, 1917, departmental dredge No. 106, worked here, and removed some 12,078 cubic yards, scow measurement, of clay and a little sand, easy to dredge.

Dimensions of work done: one cut 1450 feet long, by 50 wide average at bottom, to 3 feet below extreme low-water level, or 0-foot gauge at Contreœur wharf, corresponding to elevation 19.09. Hours of actual dredging, 250½; face removed from 2 to 5 feet; distance advanced 1,609 feet; dumping ground 2 miles downstream, in a deep place, north of Contreœur channel, close to a small island, where no damage will result, and material placed to leave 5 to 6 feet at low water.

The site of dredging done is situated 3,500 feet, upstream of Government wharf, at Contreœur, between the shore and Ile aux Rats.

DOUCET'S LANDING.

Doucet's Landing or Ste. Angele de Laval, Nicolet county, a post village on the south shore of the river St. Lawrence, directly opposite Three-Rivers, to which it is connected by steam ferry.

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Dredging was done in front of the Grand Trunk Railway wharf in order to afford sufficient depth of water by removing 2,190 yards *in situ*, or 2,910 cubic yards, scow measurement, expansion factor 33 per cent, of class B material, clay, sand, and small boulders.

The area dredged, of irregular shape, covers 1,550 square yards; the average depth of cut being 4.5 feet.

An agreement was entered into with La Compagnie Générale d'Entreprises Publiques to do the work at the price of 30 cents per cubic yard, scow measurement.

In order not to interfere with the traffic, the work was done during nights by dredge *Welland*, attended by tug *Denisa*, between November 10 and 12, 1917.

GRENVILLE CANAL.

Grenville is located on the north shore of the Ottawa river, about 58 miles below the city of Ottawa.

During the period, June 18 to 23, the departmental dredge *No. 103* worked immediately below the second lock, cleaning the canal of rock which had fallen in from the bank.

An area of 8,150 square feet was dredged to grade 10 feet on a length of 200 feet and 25 to 43 feet in width. From 1 to 1½ feet of limestone was excavated, a total of 455 yards was removed; 333 being cast over on the bank, and 120 spoiled at the old dumping ground outside the canal entrance.

HA HA BAY.

Dredging.

This dredging has been performed at Port Alfred situated on the east side of Ha Ha bay, between St. Alphonse and St. Alexis, where the Ha Ha Bay Sulphite Company has erected a powerful chemical pulp mill.

The object of this work is to facilitate the approach, by ocean steamers, to the company's wharf.

The dredging was performed by the departmental dredge *No. 115*; work was started on 28th May and continued until 30th June.

The channel, 90 feet wide, commenced in 1916 was continued inwards a further 190 feet and to a depth of 16 feet below low water spring tides.

The material was very soft clay, and some difficulty was experienced in performing the work.

ILE AUX FOINS.

Ile aux Foins is the most upstream of the group of islands in river St. Lawrence, at the head of lake St. Peter, between Sorel and Berthier.

The area dredged was obstructed during the ice shove of 1916, which had deepened the channel, at some places, from 10 to 18 feet and, at other places, nearly blocked it.

From the 3rd July to 16th October, 1917, departmental dredge *No. 106* worked here and removed 29,067 cubic yards, scow measurement, of sand and clay, in completing a channel for ferryboat and traffic between Sorel and Berthier.

Dimensions of work done: 650 feet long, parallel with range of lights, by 260 feet wide; upstream of range of lights, or immediately at foot of Ile aux Foins, 1,180 feet long, parallel with channel, by from 20 to 100 feet wide, to a depth of 10 feet below extreme low water level, or 20 feet on Marine gauge at Sorel, Quebec.

LAC ST. LOUIS.

The site of dredging is situated at the intersection of St. Lawrence and Ottawa rivers main channels, in lake St. Louis, 3 miles upstream of Lachine.

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The object of dredging is to facilitate the passage of boats drawing 14 feet of water.

From 16th May to 15th September, 1917, departmental dredge No. 123 worked here, removed some 29,550 cubic yards, scow measurement, in making 14-foot depth, clear at low water on the north side of main channel, completing 41.6 per cent of the whole project.

Dimensions of work done: one ridge situated on the north side of main channel, starting some 1,300 feet upstream of lower light of main channel, 700 feet long, parallel with main channel, by 100 feet wide average to 14 feet clear at low water; a second ridge, situated on the same side of main channel, starting at 2,200 feet upstream of lower light, on a length of 1,200 feet by 80 to 100 feet wide average, to a depth of 14 feet.

Hours of actual dredging 773½; cut, 35 feet wide; face removed, from 1 to 7 feet; distance advanced, 4,846 feet; dumping ground 2 miles downstream, immediately opposite upper light of new range, in a deep place, some 1,800 feet south of main channel, around a buoy, which has been placed by the Marine Department for that purpose.

LAPRAIRIE.

(This work is described in the annual report for 1916.)

Laprairie, a town in Laprairie county, on the south shore of the St. Lawrence, and a station on the Grand Trunk Railway.

(A) Dyke.—Contract.

During the fiscal year 1916-1917, the Duranceau & Poupore contract was cancelled. Total cost of contract, \$75,685.

Another contract was given by the Dominion Government on November 18, 1916, to the Carleton Construction Company to complete the dyke on its improvements at the estimate cost of \$79,420.47. No work had been done by the contractor on this contract during fiscal year 1916-1917.

On May last, the Carleton Construction Company began their work; as the progress of work was not satisfactory, the company was repeatedly warned that their contract would be cancelled, and the company showing no improvement in their progress, their contract was cancelled on August 8, last.

On September 5, a contract was entered into with Quinlan & Robertson Co. to complete the work on the dyke at actual cost plus 10 per cent.

The total expenditure incurred by the contractors during fiscal year 1917-1918, amounts to \$127,079.13, and work done is as follows:—

Western wall excavation.—Stone footing completed for a distance of 4,300 feet; wall extended and rebuilt completed on a distance of 4,000 feet; concrete wall protection completed for a distance of 2,700 feet completed to a height of 7 feet on a further distance of 325 feet.

Curb and Gutter.—Completed on the western side for a distance of 2,540 feet; completed on the eastern side for a distance of 1,620 feet.

Eastern wall.—Completed for a distance of 2,700 feet; and completed to a height of 7 feet on a further length of 400 feet.

Bridge.—The piers were raised about 4 feet, two additional beams were placed; the cross beams were riveted in place, and a new concrete flooring was laid.

No expenditure was incurred on the macadamized roadway this year.

Plank roadway.—During the present fiscal year, the plank roadway and temporary bridge were maintained in good order. Nearly all the planks were renewed by day labour.

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Protection wall.—A wooden crib extension of the concrete completed by the Department in 1906 in front of St. Joseph Academy was rebuilt in concrete on a length of 46 feet, height 12 feet and average thickness 2 feet.

LONGUEUIL.

Longueuil, is a port town, in Chambly-Verchères county, Montreal district, on the south shore of river St. Lawrence, opposite Montreal.

During 1917, the department undertook four different dredging improvements at Longueuil: (a) Canada Steamships; (b) Government wharf; (c) Shoal; (d) Test dredging.

A. Canada Steam.

From the 14th May to 14th July, 1917, departmental dredge No. 110 removed some 27,095 cubic yards, scow measurement, of material in completing a channel for the ferryboat, plying between here and Montreal, from the beginning of April to the middle of December.

Dimensions of work done: 450 feet long parallel with current, by a few hundred feet wide, to a depth of 12 feet below extreme low water level.

Hours of actual dredging, 266; cut 35 feet wide; face removed, from 1 to 6 feet; distance advanced, 4,267 feet; dumping ground, $3\frac{1}{2}$ miles maximum, on the northwest side of river St. Lawrence; minimum, 2 miles, the whole under the supervision of the Montreal Harbour Commission.

The site of dredging done is some 1,500 feet from Canada Steam Lines wharf, in river St. Lawrence, close to main channel, immediately below Longueuil shoal.

B.—Government Wharf.

From 21st July to 1st October, 1917, departmental dredge No. 110 removed some 21,130 cubic yards, scow measurement, of material in completing an 11 to 12-foot channel and basin leading to government wharf.

Dimensions of work done: 340 feet parallel with face of wharf and 650 feet outer, by 260 feet wide average, to an average depth of 12 feet below extreme low water level, or 0-foot gauge at Longueuil. The material removed was clay, boulders, and hardpan.

Hours of actual dredging, 320½; cut from 35 to 40 feet wide; face removed from ½ to 6 feet; distance advanced, 5,712 feet; dumping ground, 2 and 3 miles downstream, on northwest side of river St. Lawrence.

The site of dredging done is immediately opposite government wharf.

The total quantities removed here from 1913 to 1917, inclusively, are 148,752 cubic yards, scow measurement.

C.—Longueuil Shoal.

This shoal is a permanent obstruction to local navigation, and dangerous to the ferryboat, drawing 11½ feet of water, plying between Montreal and Longueuil and making seventy trips daily.

During season 1917, half of the whole project was done, and tugs with tows have used the portion already dredged.

From 16th July to 22nd November, 1917, departmental dredge No. 110, removed some 58,950 cubic yards, scow measurement, of clay, sand, and hardpan.

Dimensions of work done: 1,500 feet long, parallel with current, by a few hundred feet wide, to a depth of over 12 feet below extreme low-water level, or 0-foot gauge at Longueuil.

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Hours of actual dredging, 342½; cut, 35 feet wide; distance advanced, 7,699 feet; dumping ground, 3½ miles downstream.

The site of dredging done, is situated some 1,500 feet opposite Canada Steamship Lines wharf, at Longueuil, in river St. Lawrence.

RESTIGOUCHE RIVER.

Dredging.

Champoux Wharf, Quebec: The Champoux wharf lies in Bonaventure county, Quebec, on the Restigouche river, opposite Campbellton.

Dredging is required here every few years to enable shipments of lumber to be made from the Chaleur Bay mills.

Between 13th August and 11th September, 1917, dredge *P.W.D. No. 2* was at work in the berth along the outer face of the wharf covering an area about 450 feet long and 100 feet wide, and giving depths of about 19 to 23 feet at low water ordinary spring tides. The inside berth, about 250 feet long by 75 feet wide, was also dredged to about 13 to 15 feet.

The material removed amounted to 13,600 cubic-yards barge measurement of mud, sand, gravel, etc.

RIMOUSKI.

(This work is described in the annual report for 1916.)

The town of Rimouski, chef-lieu of the county of the same name, is situated on the south shore of the St. Lawrence river, 180 miles below Quebec.

The work done during the last nine months consisted in the sinking of the remaining caissons, aggregating a lineal length of 800 feet; building a trestle between the old and new wharf.

The superstructure on the caissons sunk this year has been begun; filling was done to the extent of about 15,000 cubic yards, but work was stopped on account of the sliding out of the new wharf, and dredging was done to the extent of 96,511 cubic yards in the tidal basin.

Expenditure, about \$65,000.

RIVER SAGUENAY.

Dredging.

The channel in the Saguenay river starts from the town of Chicoutimi down to the foot of the Battures, a distance of 8 miles.

The object of the dredging is to provide a channel, 250 feet in width on tangents, 350 to 500 feet in width on the curves and affording a minimum depth of water of 16 feet at extreme low water.

During the present fiscal year, the departmental dredge *No. 115* removed 60,604 cubic yards, scow measurement.

The operations were started 2nd July, and suspended 6th November.

The material was sand and clay, and clay with boulders.

Since the beginning of the enterprise, the channel from Chicoutimi wharf to deep water is clear of all obstructions and affording a minimum depth of 16 feet of water at extreme low water, except on the north side of the intersection of the last two courses, where a lump has been left, but this is not much obstruction, as it may be buoyed, as was done in the fall 1917.

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ST. MAURICE RIVER.

Dredging.

(This work is described in the annual report for 1917.)

The river St. Maurice flows through the Laurentian mountains, a distance of about 360 miles, and discharges in the St. Lawrence river at Les Trois-Rivières. The outlet is divided by islands into three branches called the Eastern, the Middle and the Western Channels.

Between 27th August and 5th October, 1917, the contractor removed, over an area of 234,700 square feet, 94,187 cubic yards of sand, scow measurements at 10 cents a yard, forming a total of 139,821 cubic yards, scow measurements of material removed during the two seasons 1916 and 1917, over a total area of 383,400 square feet, or 107,296 cubic yards, place measurement, giving an expansion factor of 30.3 per cent.

ONTARIO.

BYNG INLET.

Byng inlet, Parry Sound district, is situated on the Magnetawan river, about 3 miles from the mouth at Georgian bay, and is a village of about 1,500 population.

Dredging was done where required in the channel 6,045 feet in length, 200 feet in width and to a depth of 20 feet below the zero of Georgian bay, elevation 580.0, from the mouth of the river at Clark's island to the Canadian Pacific coal docks. The average depth of cut was 8.6 feet.

The work was performed by the government dredge *P.W.D. No. 109*, and work was commenced June 7 and completed August 11, 1917.

The material removed amounted to 53,336 cubic yards *in situ*, or 74,948 cubic yards, scow measure, class "B" material, and consisted of mud, sand, and clay. All material was scowed out to Georgian bay, an average towage distance of 3 miles.

CARDINAL.

This work consisted of cleaning out an area of 3.06 acres in the Old Cardinal canal to connect the canal basin with the main channel of the river St. Lawrence, in order to provide sufficient depth to allow vessels of 14 feet draught to dock at the Canada Starch Company's wharves at extreme low water. Work was done 26th September to 16th November, 1917, when 16,250 yards, place measurement, or 24,600, scow measure, of clay, sand, and boulders were removed by departmental dredge *No. 123*.

CORBET REEF.

Dredging.

Authority was given to accept the offer of the Robert Weddell Company to remove by dredging 7,427 cubic yards, place measurement, from the harbour, at the rate of 39 cents per cubic yard, place measurement, to provide a depth of 20 feet below low water over the shoal areas at the entrance, which said shoal areas extended easterly from east end of west breakwater across harbour mouth, and were a source of considerable trouble to the Ontario Car ferries in entering and leaving the harbour.

An amount of 900 cubic yards, place measurement, was authorized to be removed in the lower end of slip at car ferry dock; this amount to be in extension of the 7,427 cubic yards under contract with the R. Weddell Company.

The work done in the inner harbour consisted in dredging to a depth of 22.5 feet, a section 40 feet in width by 125 feet in length, at entrance to car ferry slip, so as to permit car ferries to pull up their bows and to raise stern in order to make repairs or adjustments to propeller.

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A triangular shoal area, 180 by 120 feet, was dredged easterly from above section to a depth of 18.5 feet below zero.

Work was commenced May 31, by dredge *Trenton*, and was completed July 16, and consisted in the removal of 8,172 cubic yards, place measurement, or 10,847 $\frac{3}{4}$ cubic yards, scow measurement.

DESBARATS.

Desbarats is a village, about 30 miles east of Sault Ste. Marie, situated on the line of the Canadian Pacific railway, and about a mile from the mouth of the small river named Walker river, which flows in a southerly direction and empties into the north channel of lake Huron, opposite St. Joseph island.

Work of constructing a small landing by day labour was commenced on the 15th August and was completed on the 18th of August, 1917.

The work was necessary in order to facilitate the traffic by launches, including mail boats, to and from St. Joseph island. Owing to the high-water level of lake Huron during 1917, the old slab-and-sawdust wall or embankment, which had been used as a wharf, was submerged. The work consisted of an L-shaped platform, constructed on the old slab-and-sawdust landing place, one section of which is 6 feet wide by 36 feet long, 8 feet wide by 43 feet long, and 6 feet wide by 12 feet long, giving the landing a water face 91 feet long. Sawdust and slabs were hauled and spread in the rear to make additional width and dry approaches.

FORT WILLIAM.

Fort William, district of Thunder Bay, a city of 18,000 people, is situated at the mouth of the Kaministiquia river near the northwest end of lake Superior.

The harbour consists of 13.02 miles of navigable channels in the Kaministiquia river and in the McKellar and Mission channels, which for the most part have been dredged to a depth of 25 feet below L.W.L., and have a general width of 500 feet. The harbour frontage available for dockage amounts to 22.45 miles, of which 7.73 miles have already been built up.

Mission River Revetment Wall.—The work of rectification of cribs Nos. 101 to 105, inclusive. Operations in connection with this work were commenced on April 7 and closed down on November 12 last, when the work was accepted from the contractors, subject to their agreeing to perform any minor repairs that might be found necessary after an inspection early this spring.

Two different and yet somewhat similar methods were used in performing this work, viz.: (1) the method used in connection with cribs Nos. 102 and 103, where it had been found necessary to remove all of the old concrete superstructure, and (2) the method used in the rectification of cribs Nos. 101, 104, and 105, where the old concrete superstructure had been left in place.

In the former case, the cribs were raised in timber to the original required elevation of the cribs below L.W.L., the raised sections of cribs not only being secured to the old crib-work, but the lower cross-ties of the raised sections being spaced at 2 $\frac{1}{2}$ -foot centres and projecting beyond the front face of crib-work 15 inches so as to rest on the piling, which was driven as part of the work of rectification at the spacing stated, and was secured by screw bolts and drift bolts to the old crib-work. In addition, an iron stirrup was placed over the top of every alternate projecting cross-tie and was bolted to the old crib-work with drift bolts, after the raised section of these cribs had been secured in place, then two piles were driven to solid foundation through each of the rear pockets of these cribs; heavy rocks and broken concrete were then placed as filling in and along the rear of these cribs to about L.W.L., and the concrete superstructure, including the concrete blocks that had been salvaged, was replaced.

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In the case of cribs Nos. 101, 104 and 105, British Columbia fir piling from 80 to 90 feet long was driven at 2½-foot spacing along the front of these cribs and secured to the front face timbers by iron drift bolts, the piles being cut off at an elevation of from 12 to 14 feet below L.W.L.; on the top of these piles a row of waling, 10 by 16 in site, was secured to the face timbers of crib, and in order to assist in transferring the greater part of the weight of the structure to the piles, vertical struts of hard maple, 6 by 12 by 6 feet were secured to the face timbers of cribs above the waling, at about 20-inch centres. These struts were drift-bolted to the crib-work with six drift bolts; in addition, a pair of piles was driven in each of the rear pockets of these cribs to solid bottom, and the stone-filling in rear of the concrete superstructure was brought to about L. W. L. with heavy rock and old broken concrete. The concrete superstructure of this section of the work then scarified, the old bollards removed and new mass concrete was poured, in order to bring the work to the established datum, and the bollards were replaced. The waling along the front of concrete superstructure was then renewed.

All of the above work was performed by force account under clause 36 of contract, with the exception of the placing of new concrete, new concrete blocks, new waling, and iron above water.

Mission River Revetment Wall: Repair and renewal of waling along the front face of superstructure of the revetment wall in the G.T.P. terminal basin and slips were performed between 11th and 22nd of November.

Dredging: Dredging was performed in this harbour during the present season, by the Great Lakes Dredging Co., Limited.

The work done, which consists in widening and deepening the Kaministikwia river and Mission channel, was performed by dredges *No. 6* and *Dominion*, between the following dates, viz: Dredge *No. 6*, May 6 and November 27, and dredge *Dominion*, May 15 and June 23, and from July 30 to November 30 last, on which date all operations were closed down for the season.

The total quantity removed during the current fiscal year was 911,977 cubic yards, scow measurement, of which 2,918½ cubic yards scow measurement were of class "A" material, and 909,058½ of class "B" material. The quantities removed per dredge from West Fort turning basin and areas covered by original contract are:—

	Cubic yards, scow measurement.
Dredge <i>No. 6</i>	391,165
" <i>Dominion</i>	520,812
Total	911,977

Kaministikwia River: Practically all of the bank work to be done in the West Fort turning basin was completed, a quantity of 151,810 cubic yards, scow measurement, having been removed in this location by the dredge *Dominion*.

Deepening of the channel in the approaches to the G.T.P. bridge over this river was performed by the dredge *Dominion*, a quantity of 9,325 cubic yards, scow measurement, being removed.

The river was deepened between the G.T.P. bridge and a point opposite the Imperial Oil Company's property, a total quantity of 57,270 cubic yards, scow measurement, being removed. This section of the river was swept on the completion of dredging and was found to be at the depth required under the contract.

A large amount of deepening was performed in that section of the river extending from the Mission channel to a point north of the McKellar channel, the total quantity removed in this location being 143,129 cubic yards, scow measurement. This work included the deepening of the channel in the approaches to and through the C.P.Ry. bridge. Prior to the performance of dredging in the immediate vicinity of this bridge and under a joint agreement between the city of Fort William, the Kaministikwia

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Power Company, Ltd., and the Canadian Pacific Railway Company, all cables belonging to the parties named were removed from the bed of the river, and on the completion of the dredging these cables were relaid in a common trench a short distance above the bridge, at a depth of 30 feet below L.W.L., the trench being backfilled with broken shale and gravel to an elevation of 26 feet below L.W.L. By far the greater part of this section of the river is now practically at the required elevation, and it was endeavoured to establish this point by sweeping to a depth of 25 feet below L.W.L.; it was found, however, that there were several small shoals which will require removal during the coming season.

Certain shoal areas found to exist in that section of the river lying between the Empire elevator and the McKellar channel, and which extended for the most part along and adjacent to the dockage on the north side of the river, were removed to subgrade, a total quantity of 86,404 cubic yards, scow measurement, being dredged in this instance.

The total quantity removed this season in widening and deepening the Kaministikwia river was 447,938 cubic yards, scow measurement.

Mission Channel: Deepening and the removal of a number of shoals was performed over a large section of this channel, extending from its confluence with the Kaministikwia river to a point opposite the upper end of the Fort William coal dock, the quantity dredged being 74,322 cubic yards, scow measurement.

The major part of the widening required to be performed in this channel, along its northerly side and extending from a point opposite the Fort William coal dock to the shore line of island No. 2, in Thunder bay, was completed during the present season, the total quantity removed being 389,717 cubic yards, scow measurement.

The total quantity removed in the Mission channel during the present season was 464,039 cubic yards, scow measurement.

The following unit prices obtain in the above contract, viz.:

Widening: Rock, \$2.40 per cubic yard, scow measurement. All other materials 10½ cents per cubic yard, scow measurement.

Deepening: Rock, \$2.85 per cubic yard, scow measurement. All other materials, 22½ cents per cubic yard, scow measurement.

Extra haul: 1 cent per cubic yard, scow measurement, per mile over 3½ miles.

Summary of quantities removed by dredging under the above contract in accordance with the respective locations of areas dredged:

	Cubic yards, scow measurement.
Kaministikwia river—	
West Fort turning basin..	151,810
G.T.P. bridge..	9,325
G.T.P. bridge to Imperial Oil Company.. . . .	57,270
Mission channel to C.P.Ry. bridge.. . . .	84,592
C.P.Ry. bridge..	1,100
C.P.Ry. bridge to McKellar channel.	57,437
McKellar channel to Empire elevator.. . . .	86,404
	<hr/>
	447,938
Mission channel—	
Kaministikwia river to Fort William coal dock.. .	74,322
Island No. 2 (widening) Fort William coal dock to Thunder bay..	389,717
	<hr/>
	464,039
Grand total..	<hr/>
	911,977

In connection with the above contract, it might be stated that prior to the current fiscal year a total quantity of 14,352,384 cubic yards, scow measurement, had been dredged, so that the total quantity removed to date under this contract is 15,264,361 cubic yards, scow measurement.

As a result of the most recent soundings taken, it is found that the following governing depths below L.W.L. in the various portions of the harbour referred to, are available, viz:

	Width. (feet)	Least. Depth. (feet)	General. Depth (feet).
Kaministiquia River—			
Entrance channel in Thunder bay.. . . .	550-600	23.2	26.0
From Empire elevator at mouth to City dock.	350-400	23.6	26.0
“ City dock to C.P.Ry. bridge.. . . .	300-350	23.0	26.0
Through C.P.Ry. bridge.. . . .	110	22.1	26.0
From C.P.Ry. bridge to Mission Channel.. . .	300	23.1	26.0
From Mission channel to bend above Elevator “D”.. . . .	275	23.2	26.0
From bend above Elevator “D” to Imperial Oil Co's dock.. . . .	175	21.0	23.0
From Imperial Oil Co.'s dock to G.T.P. bridge..	100	25.0	26.0
Through G.T.P. bridge.. . . .	80	21.0	23.0
From G.T.P. bridge to C.N.Ry. coal dock.. . .	300	22.2	25.5
At bend in river above C.N.Ry. coal dock..	200	21.0	26.0
Over the West Fort turning basin to the Mutual elevator.. . . .	1,050	21.0	24.0
Mission Channel—			
Entrance channel.. . . .	150	22.2	26.0
Least depth along revetment wall from wall out 50 feet into channel.. . . .	.....	15.2	
Least depth along revetment wall over a width of from 50 feet to 150 feet from face.. . .	.....	21.0	
From entrance channel, 1,200 feet north of inner end of slip No. 3.. . . .	300	19.2	24.0
From Fort William coal dock to Fort William starch works.. . . .	350-400	24.4	25.5
From Fort William starch works to junction with Kaministiquia river.. . . .	400	23.6	25.5
G.T.P. turning basin west of entrance channel.			26.5
G.T.R. turning basin over area 150 feet out from limits.. . . .		21.0	
G.T.P. Slip No. 1, the most westerly slip west of Turning basin.. . . .		22.9	25.0
G.T.P. Slip No. 2, west of Turning basin.. . .			24.0
G.T.P. Slip No. 2, over area 50 feet from limits.		22.3	
G.T.P. Slip No. 3, the most northerly slip west of turning basin.. . . .			23.6
G.T.P. Slip No. 3, over area 190 feet from limits.. . . .		21.7	
McKellar Channel—			
From Thunder bay to C.P.Ry. bridge.. . . .	350-400	23.2	26.0
Through C.P.Ry. bridge.. . . .	70	22.5	26.5

The work that requires to be attended to under contract No. 7339, which expires in December next, consists almost entirely of deepening or scraping areas dredged in previous seasons, and which more particularly are as follows:—

Kaministiquia River.—(1) The West Fort turning basin and upper section of the Kaministiquia river to and through the G.T.P. bridge.

(2) From Imperial Oil Company's dock to bend in river adjacent to elevator “D.” This work includes the widening of the river at the city waterworks crossing, and the performance of same this season depends upon whether the city of Fort William lowers the water mains referred to or otherwise alters their location so as to permit the proper development of the river at this point.

(3) The removal of a few shoals between the Mission channel and the City dock.

Mission Channel.—(4) From the Fort William coal dock easterly to and including the entrance channel in Thunder bay.

HAMILTON.

Hamilton, in the county of Wentworth, is situated on Burlington bay, an inlet at the western extremity of lake Ontario, and is a station on the Grand Trunk and Canadian Pacific railways.

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Authority was given to proceed with dredging required at Wabassa park, the work to be done by departmental dredge No. 114, and the amount to be dredged being 7,714 cubic yards, scow measurement.

Work was commenced April 30, and completed September 1. Part of this material was cast over for filling purposes, 4,318.8 cubic yards, place measurement or 6,835 cubic yards, scow measurement, were removed.

It was necessary to provide a draught of 12 feet for the landing of steamers at this location and two sections were dredged over; first on east side of wharf, a section 85 by 160 feet; and secondly, on west side, a section 70 by 120 feet were deepened.

Authority was given to move dredge No. 114 to Oliver Plow Works, to complete the cleaning up of the section opposite dock, on northeast half of channel.

This work had previously been dredged to grade but on account of filling in, this section constituted a shoal area which was not available for full draught. The section deepened covered a length of 1,000 feet by a width of 300 feet.

Work was commenced May 11 and completed October 9; 24,916 cubic yards, place measurement, or 29,023 cubic yards, scow measurement, were removed. Dredging was carried to a depth of 17.5 and 20.0 feet below zero.

Authority was given to do necessary dredging at revetment wall, foot of Catherine street. Work was commenced June 19, and completed June 20; 285.8 cubic yards, place measurement, or 352 cubic yards, scow measurement, were removed in dredging at this section to 15 feet below zero.

The above work was done to remove a shoal area caused by outlet of Catherine street sewer, which said shoal area caused inconvenience to the landing of the Canada Steamship Company's steamers at their dock. A section, 47 feet by 265 feet, was dredged over in removing this shoal area.

Authority was given to do the necessary dredging at Rock Bay wharf. Work was commenced June 22 and completed July 14; 6,533.3 cubic yards, place measurement, or 6,593 cubic yards, scow measurement, were removed.

Dredging was carried on to 10 feet below zero. A channel 490 feet in length by 85 feet in width, was dredged over to give necessary accommodation.

HAWKESBURY.

Hawkesbury is located on the south shore of the Ottawa river, about 58 miles below the City of Ottawa.

In order to restore the navigable channel to Captain Lawlor's wharf, used for public traffic, departmental dredge No. 103 continued the improvements started in 1915, principally to remove waste pulp which has accumulated in the past sixteen years between the Riordon pulp mills and Cobb's island. The dredge operated here from June 6 to November 20, under an agreement with the Riordon Pulp & Paper Co., Ltd. During this period, the total yardage removed was 58,289 (scow measurement), of which 53,975 was waste pulp, 4,314 cubic yards clay and sand, and 131 boulders (place measurement). Eleven single cuts, 25 feet wide, were made, aggregating 6,159 lineal feet to grade elevation 118, or original bottom.

On August 4, departmental dredge No. 103 also removed 325 yards clay in connection with the laying of a new water main for the R.P. & P. Co., under an agreement with Fuller & Co.

KINCARDINE.

Dredging.

Authority was given to accept the offer of the C. S. Boone Dredging Company to do the necessary work at a rate of 34 cents per cubic yard, place measurement, with a total excavation of 14,668 cubic yards.

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By authority, the total amount to be excavated was increased to 16,332 cubic yards, place measurement.

Work was commenced July 20, by dredge *Kingsford* and completed August 24, and consisted in dredging a channel width of 50 feet between piers for a length of 850 feet, as well as a bell-mouth entrance of 250 feet in length with a maximum width of 150 feet.

In inner harbour a section of 200 feet in width by 405 feet in length was dredged leading to the People's Salt and Soda Company's dock. The excavation was carried to a depth of 14 feet below the zero water level.

KINGSTON.

The completion of the erection of the bascule bridge and installation of appurtenances thereto. Traffic over the roadway and bridges was formally opened on April 16 and the bascule has been in successful operation since July 18, the records showing a total of 776 lifts from July 25 to December 14, when navigation closed.

The object of the work is to provide a highway across the Cataraqui river, together with wharfage facilities. The bascule is built over the channel leading into the inner harbour and Anglin's bay and designed to be lifted so as to permit vessels to pass in and out. Depth of channel under lift span 22 feet; depth of harbour inside, not yet completed, 16 feet, both with reference to lowest water of lake Ontario.

MIDLAND.

Dredging.

Authority was given to dredge an area 400 feet in length along the front of the launching face of the Midland Dry Dock Company and out to the 21-foot contour, the depth to be 21 feet below elevation 580.0. This work consisted in the removal of the slab docks, mud, clay, and sand. The total quantity removed amounted to 67,073 cubic yards, scow measurement; authority was given to extend the work an additional length of 215 feet. The quantity dredged amounted to 26,908 cubic yards, scow measurement. The whole work was done by dredge *P.W.D. No. 100* and was completed November 26, 1917. Both areas were swept and found to be 21 feet below zero of gauge elevation 580.0.

POINT EDWARD.

Dredging.

Point Edward is at the entrance of the St. Clair river, south end of lake Huron.

The strong current in the river and lake storms wash sand and gravel into the mouth of the river, making it necessary to dredge each year to maintain a navigable depth.

According to a verbal agreement with the District Engineer Officer of the United States War Department, it is agreed that neither side will permit dredging deeper than 23 feet below the zero of the water gauge, elevation 578.51 at Point Edward and any point in the river between the international tunnel and lake Huron.

The sand and gravel in this part of the river, on the Canadian side, is of a commercial value, and it has been found satisfactory to grant a dredging company permission to remove it free, the gravel becoming their property. For the purpose of giving effect to this agreement, and regulating the dredging, an agreement was made with the Chick Contracting Company of Windsor, permitting them to dredge between Cromwell street, Sarnia, and Point Edward, providing they undertake to supply all Canadian municipalities and interests along the St. Clair and Detroit rivers with gravel at a regulated price.

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At the same time, the Province of Ontario issued licenses covering the same area, collecting a royalty of 8 cents per cubic yard, and permitting the dredging companies to sell in any market.

The quantity removed from the area was as follows:—

	Cubic yards, scow measurement.
Chick Contracting Company, Dominion Government agreement..	22,318
Chick Contracting Company, Province of Ontario license.. ..	86,980
Other companies, Province of Ontario license.. .. .	20,405
Total removed from area between Cromwell street, Sarnia and Point Edward.. .. .	129,703

Dredging was commenced on May 4 and ended on December 8. The only expenditure on the work was the salary of an inspector.

PORT ARTHUR.

The city of Port Arthur, Port Arthur—Kenora district, has a fine natural location on the shore of Thunder bay near the northwestern end of lake Superior.

Temporary Pile Protection Breakwater.

To provide adequate protection for the grain elevators being constructed in the north end of the harbour, pending the construction of further extensions to the Bare Point breakwater, tenders were called in November, 1917, for the construction of a pile protection breakwater.

Advice was received on December 24 that the contract had been awarded to the Thunder Bay Harbour Improvement Company.

Work was commenced on 17th January and the final estimate in favour of the contractors was sent on March 19, 1918.

This breakwater was built in two sections of 753 feet long each. It consisted of:—

(a) One continuous row of round piles, approximately 45 feet long with two waling strips attached;

(b) One row of round piles spaced 5 feet centre to centre longitudinally and driven alternately at 6 feet from the guide piles;

(c) One row of round piles spaced 5 feet centre to centre longitudinally and driven 10 feet from the guide piles with a waling strip attached;

(d) One row of round anchor piles placed and driven close to waling strip attached to piles, described (c);

The whole securely fastened by waling, bracing all screw bolted, and

(e) A cluster of six piles every 25 feet and bound by $\frac{3}{4}$ -inch wire cable, driven close to the guide piles (a).

Dredging.

The removal of 282,200 cubic yards scow measurement, class B, prior to December 15, 1917, was authorized and the work started June 25, 1917.

In front of Government Elevator: Dredging was done from the harbour line to a line running parallel to it and 185 feet from the east end of the government elevator wharf:—

Length.. .. .	550 feet approximate.
Width.. .. .	165 " "
Depth made.. .. .	25 " "
Quantity removed.. .. .	35,958 cubic yards, scow measure, class B.

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•Class A Material.

Deepening main harbour south.	8'88 cubic yards, scow measurement.
Richardson slip.	898 " "
Total, class A.	906'88 " "
Total quantity removed.	220,277'58

All depths mentioned refer to zero of the P.W.D. staff gauge, which is 601'86 M.S.L.

All the class B material consisted of sand and clay and loose shale rock.

Two dredges were employed, *Excelsior* and *Dominion*. The average haul to the dumping ground was 2 miles, and work closed for the season on December 11, 1917.

PORT BURWELL.

Dredging.

Sediment is deposited in the winding basin and between the piers by Otter creek. The channel east and south of the breakwater continually collects sediment and sand drifting on the lake bottom.

Work of dredging began April 9 and stopped July 14; it was resumed on November 12, but owing to a serious break in the dipper on the 14th it was discontinued for the season.

Surveys of the harbour were made April 9 and July 7. The following table is the result of a study of place measurements and scow measurements based on the above surveys:—

Dredging from April 9 to July 7, 1917.

	Average dimension.	C. yds., P.M.	Ex. Fac.	C. yds., S.M.
Turning basin, east side.	235 x 120 x 1'23	1,285	216 %	4,050
Turning basin, west side.	342'5 x 160 x 1'04	2,111	465 %	11,932
Between piers.	1,075 x 86'2 x 2'1	7,210	155'3 %	18,411
Channel east of breakwater.	1,160 x 178 x 2'15	16,452	151'8 %	41,404
South of outer end breakwater.	580 x 170 x 2'6	9,880	107 %	20,447
		36,938	160'6 %	96,244

It will be noted that the expansion factor is unusually large; this is probably due to the large quantity of sediment and sand deposited during the progress of the work between April 9 and July 7. The navigable depth during 1917 was much better than in 1916, owing to the bottom being lower and the lake level unusually high.

Summary Dredging.

	Cubic yards, scow measurement.
Dredging, April 9 to July 7.	96,244
" week ending July 14.	66
" week ending Nov. 14.	2,372
Total dredged during season.	98,682

PORT STANLEY.

Dredging.

Sediment is deposited in the inner harbour and the winding basin by Kettle creek, particularly during freshets, and sand drifts into the dredged channel south of the breakwaters.

Public Works dredge No. 117 began work July 30 and stopped November 10. The quantity removed was 64,101 cubic yards, scow measurement.

During the season, dredge No. 117 was rented to Contractor M. J. Hogan to assist in dredging berths for the extension of the western breakwater, also some other

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work. Some of the work performed by the dredge for Contractor Hogan was covered by a schedule of contract price; other work, such as digging ballast stone, was not covered by dredging price, the contractor being paid for the ballast stone in the work.

The total yardage removed for the Government and for Contractor Hogan's work, including crib seats, ballast stone, etc., amounted to 99,311 cubic yards; at a total cost of \$16,670.79, being an average price of 16.9 cents per cubic yard scow measurement.

During the month of June, a contract was entered into with M. J. Hogan, and 465 cubic yards of clay removed in front of the revetment wall on the west side of the harbour near the highway bridge, at a cost of 18 cents per cubic yard, total \$83.70, and the material was placed behind the revetment wall. The dredging was done to accommodate the Cleveland and Port Stanley passenger steamers; when the company undertook to operate its steamers it found that on account of the difficulty in obtaining passports it would be impossible to do so during war time.

The dredging in the entrance channel is not completed, and it is proposed to continue the work during next season.

RONDEAU.

Dredging.

Rondeau is an important port of entry and harbour of refuge at Point aux Pins, north shore of lake Erie.

It was found necessary to deepen the dock; this was done by Public Works dredge No. 117 working from July 21 to July 28. The quantity removed was 11,446 cubic yards scow measurement at a cost of \$1,773.29, equal to 15.4 cents per cubic yard scow measurement.

TORONTO.

(This work is described in the annual report for 1915.)

The city of Toronto, with a population of half a million, and situated near the head of lake Ontario, possesses an exceptionally fine land-locked harbour, known as Toronto bay.

During the past season, one 100-foot crib was sunk and ballasted, 1,490 lineal feet was levelled up and capped, and, of this, 430 lineal feet has been floored with 4-inch hemlock. Some rectification work was also performed, 300 lineal feet of cribwork being made acceptable to the department. Dredging done during the year amounted to 5,679 cubic yards. This section of the work was commenced in May, 1914, and since that date, 4,340 lineal feet of cribwork has been placed and the necessary round piles driven along front and rear faces.

Where extra depth of water was encountered, cribs resting therein were built 20 feet wide at the base and stepped in to the standard 16-foot width on top.

Section "C".—Ship channel and turning basin. On this section of the work excellent progress has been made practically all the old substructure work has been rectified and a considerable length of new wall has been placed. Of the rectification, only about 65 lineal feet of wall have yet to be made to conform with the requirements of the Department, and 5,140 lineal feet of entirely new substructure has been placed. Of the concrete superstructure, 16,033 cubic yards have been poured. Thus, of the total, 13,002 lineal feet in the ship channel, 2,060 lineal feet have been completed, 4,470 lineal feet require only the top lift of the superstructure, 610 lineal feet have the first lift or slab placed, and 5,862 lineal feet require the whole superstructure.

In the turning basin, practically all round piles, caps, and stringers are in place. All this work, or 3,787 lineal feet, has been done during the past season.

It is interesting to note that the contractors, appreciating the difficulty of performing this work under water, have built a levee around the site of the different

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walls, and by the aid of pumps are enabled to hold the water-level at a point 2 feet below the top of bent piles. Thus the structure being exposed to view, the quality and progress of the work are both improved.

During the year, 847,527 cubic yards were removed from the ship channel and turning basin by hydraulic dredge, and deposited as backfill. Dredging necessary to build walls on this section of the work amounted to 32,529 cubic yards for the same period.

Extra work done at corner "K"—Sections "C" and "D".—Owing to the soft material encountered near corner "K", it was found necessary to use piles of greater length than used in other parts of the wall, also to supply additional anchorage 60-foot round piles and 60 and 76-foot sheet-piles were used as conditions warranted; the latter being of such length as to reach the rock, and being shod, have obtained a toe-hold in the rock, thereby preventing any sliding of the wall.

Additional anchorage was also provided by driving piles 50 feet behind the standard anchorage and extending the 2-inch rods back to them, thereby preventing any overturning tendency of the wall.

The substructure of this work has now been completed at an additional cost of \$44,495.59 more than the standard type of walls called for by the plans and specifications.

All of this work has been done in the dry, being within the area where the water has been reduced to 4 feet 9 inches below the ordinary lake level.

Section D.—Retaining walls, northern slip and marginal way.—That portion of the contract known as the northern slip or Don diversion channel was completed ready for back-fill during the fiscal year 1916-17, as was also the north marginal way wall.

On section WW I, known as Polson's extension (924 feet in length), the whole substructure has been rectified. The design of this wall has been altered so that the timber superstructure is now replaced by a combination of concrete and timber.

During this year, the substructure of sections KV and VY known as the south marginal way wall, 1,350 feet in length, has been rectified and the first two lifts of concrete superstructure have been completed, 1,856 cubic yards having been poured.

Work on the 900-foot ventilating channel was started during the year, and all of the substructure on the 1,800 feet of wall has been completed, with the exception of about 100 feet at the north end.

In order to build these walls it was necessary to dredge 60,273 cubic yards of material, of which 33,629 cubic yards were within the channel itself.

MANITOBA.

BIG GEORGE ISLAND.

The object of the work at this place is to provide a harbour of refuge for vessels plying in the northern waters of lake Winnipeg.

During the past season, the approach to the harbour begun in 1916-17 (see report for fiscal year ending March 31, 1917, page 50) was continued, a cut 100 by 30 feet with an average cut of 2.5 being made. Approximately at right angles to this approach and at the outer side of the harbour, a cut 510 by 50 feet, with an average cut of 2.5 was also made.

The proposed harbour will be 500 by 300 feet when complete and the work of the past season still leaves an area of 500 by 250 feet untouched. It will also be necessary to deepen the portion already dredged.

The material removed consisted almost entirely of granite boulders, with some sand; the boulders were cast over towards the lake in order to provide a breakwater, and the amount of material removed was 3,161 cubic yards, place measure.

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P. W. D. dredge No. 202 was employed from July 30 to October 20, or a possible time of 702 hours. Of this 137 hours were actual dredging hours, the remainder being lost mainly due to storms and towing.

The total cost of the work was \$2,985.58, or a cost per cubic yard of 94½ cents, and was under direct supervision of the office staff.

WINNIPEG.

Dredging.

The object of this work is to provide an approach to and a berth beside the government wharf.

The work consisted of a cut behind the angle of the wharf as a shelter for the dredge and one long and two short cuts for the approach and berth. The total length of these cuts is 822 feet, with a width for each cut of 40 feet, to a depth of 9 feet at low water.

The material consisted of sand, and 6,100 cubic yards were removed, being scowed a distance of half a mile.

Dredge No. 205 was employed from July 3 to July 16, a possible time of 114 hours, of which 46 were lost due to storms, towing and repairs.

Some filling-in may be expected, but with the maintenance of the present lake level no dredging would be required inside three or four years.

RED RIVER.

Forks.

The work of dredging at this place was to maintain and improve the channel at the forks of the Red river, about three miles from the mouth.

The work consisted of one cut 1,753 feet long, 140 feet wide, with an average cut of 5.2 feet and to a depth of 9 feet at low water.

This channel is on the principal route of navigation in Manitoba.

The material consisted of hard sand, and 47,330 cubic yards, place measurement, were removed, all being castover.

Dredge No. 201 was employed from August 17 to October 30, giving a possible time of 630 hours, of which 291 hours were lost time.

The duration of this work will be from two to three years.

Park Point (Crescent Island).

The object of this work was to widen the channel in the Red river between Park point and Crescent island.

The work consisted of two cuts of a total length of 4,189 feet, each 40 feet wide, with an average cut of 8.8 feet. A good channel with a depth of 9 feet at low water exists now and the possibility of ice jams affecting the town of Selkirk and the government property, which occurred at this point, is eliminated.

The material consisted of clay and sand, and 61,280 cubic yards were removed. This material was found to have an expansion factor of 15.4 per cent, giving a place measure yardage of 51,548.

Dredge No. 205 was employed from July 31 to October 10, giving a possible time of 620 hours, of which 125 hours were lost, mainly due to repairs, holidays, and cleaning boilers.

Channel.

The object of this work was to provide a channel for the approach to and a berth outside the protection work, widening the channel inside the mouth of the river and filling up

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holes behind the protection work. The outside work has to be done annually, but the inside work was completed this season and will be permanent.

The work consisted of: (a) outside, one cut 954 feet long 140 feet wide, with an average cut of 3 feet; (b) back-filling protection work, one cut 957 feet long 50 feet wide, with an average cut of 5 feet; (c) inside the river, three cuts of a total length of 1,674 feet, each 40 feet wide, with an average cut of 11.6 feet, leaving a depth of 9 feet at low water.

The material consisted of clay, sand, and river silt, and a total of 52,496 cubic yards was removed, of which 23,696 cubic yards, place measure, were cast over by dredge No. 201, and 28,800 cubic yards scow measure, removed by dredge No. 205.

Dredge No. 201 was employed from May 31, to August 16, or a possible time of 670 hours, of which 441 hours were lost, due to storms, repairs, etc.

Dredge No. 205 was employed from May 31, to July 2, and July 17 to July 30, or a possible time of 406 hours, of which 128 hours were lost, due to storms, cleaning boilers, etc.

SUGAR ISLAND.

The object of this work was to remove a middle ground which forms at the down stream point of Sugar island.

The work consisted of one cut 951 feet long, 40 feet wide, to a depth of 9 feet at low water.

The whole work was not completed this year, and there still remains 35,000 cubic yards to be removed.

The material consisted of sand and clay, and 6,500 cubic yards, scow measure, were removed.

This material shows an expansion factor of 8.8 per cent, giving a place measure yardage of 5,933 cubic yards.

Dredge No. 205 was employed from October 11 to October 22, or a possible time of 100 hours, of which 35 hours were lost due to repairs, storms, and cleaning boilers.

SELKIRK SLOUGH.

Dredging.

The object of this work was to maintain the channel in the slough and provide a turning basin opposite the government shipyard.

The work consisted of two cuts, one in the channel 3,215 feet long, 40 feet wide, with an average cut of 5 feet; the other at the turning basin, 488 feet long, 40 feet wide, with an average cut of 12.3 feet, the whole to a depth of 9 feet at low water.

The material consisted of clay, and a total of 33,063 cubic yards, scow measure, was removed, from the channel 24,131 cubic yards and from the basin 8,932 yards.

Dredge No. 202 was employed in the channel from June 6 to August 3 and October 20 to October 30, or a possible time of 545 hours, of which 96 hours were lost through storms, procuring fuel, cleaning boilers, etc.

Dredge No. 205 was employed from October 23 to November 2, or a possible time of 93 hours, of which 15 hours were lost through repairs, etc.

BRITISH COLUMBIA.

BRUNETTE RIVER.

The dredge *King Edward* dredged the booming grounds in front of the Brunette saw-mills, to enable the company to get logs into their small canal connecting the Fraser and Brunette rivers. Work was started March 8 and completed March 14, 1918;

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the area dredged was 300 feet long by 100 wide, to 8 feet at low tide; 6,395 cubic yards of material was removed.

BURRS LANDING.

The dredge *King Edward* dredged a channel in front of Burrs Landing, on the Fraser river, about 8 miles below New Westminster.

Work was started on January 22, 1918, and completed March 5, during which time 35,065 cubic yards of sand was removed. The channel dredged was 1,780 feet long, average width 175 and 10 feet deep at low tide.

COQUITLAM.

The dredge *King Edward* dredged in front of the Pacific Construction Company's shipyard, at Coquitlam, who are building two ships for the Imperial Munitions Board. The cut made was 200 feet long, 200 wide, to 12 feet at low tide. Work commenced December 19, but the material was found too hard, and after working some days and removing about 2,035 cubic yards the dredge was removed to other work, and January 28, 1918, the dredge *Mudlark* started work and removed 12,900 cubic yards, and completed the work on March 8, 1918.

COURTENAY RIVER.

The Courtenay river runs in a southeasterly direction into Comox harbour. Courtenay, near its mouth, the northerly terminus of the Esquimalt and Nanaimo railway, is the principal town of the Comox valley.

During 1914 and 1915, the original tortuous channel over the tidal flats between Comox bay and the mouth of the Courtenay river had been straightened by dredging a new channel 3,000 feet long and 10 feet wide by means of the departmental dredge *King Edward*.

During the latter end of the past fiscal year, the orange-peel bucket dredge *Victoria* cut a channel 80 feet in width, by removing numerous boulders and snags and providing additional depth over two bars, at the river mouth and below the town of Courtenay, respectively. The estimated quantity of material which was all overcast to the sides of the channel, from April 1 to July 31, 1917, date when the work was completed, was 6,087 cubic yards.

The total length of channel improved to date is 7,000 feet.

DEAS ISLAND.

The dredge *King Edward* dredged a channel in front of the Deas Island cannery, on the Fraser river, about 9 miles below New Westminster.

The object of this work was to enable fishing boats, etc., to get to the cannery wharf and net racks, at all stages of tide. The length of the cut was 550 feet, the average width 70 and the depth made was 8 feet at low tide. The total amount removed was 12,840 cubic yards.

The work was commenced May 28 and finished June 1, 1917.

EBURNE.

Three wing dams were built on the south branch of the north arm of the Fraser river, about a mile and a half below Eburne, to deflect the current from the bank. These wing dams were 75 feet long, and 300 feet apart, built with two rows of piles 6 feet apart and filled with layers of brush and rock.

This work was commenced November 19, and completed December 31, 1917.

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Dredging.

The dredge *King Edward* dredged material from the channel opposite the three wing dams constructed by the department last November, the material being deposited on each side of the wing dams, and along the shore between them, and 30,895 cubic yards was placed there.

This work was commenced March 18 and completed March 26, 1918.

FOREST GLEN, COLUMBIA RIVER.

As a further improvement to the steamboat channel at this point, two additional cuts were made during the fiscal year 1917-18 west of and parallel to the cut of 1916-17, giving a 300 foot channel between the sand bar and island, with a minimum depth of 8 feet of water at low water. The spoil bank piled to the west of the cut practically cuts off all flow of water on this side at the low-water stage, and this concentrates the full volume of the river through the cut. It is expected that further silting-in of channel at this point will be eliminated.

Work here was commenced by P.W. dredge No. 311 on November 5, 1917, and completed March 31, 1918. During this time, 88,400 cubic yards of sand were handled, 24,600 cubic yards of which were twice overcast.

FRASER RIVER.

Steveston Jetty.

Messrs. Marsh, Hutton & Powers had the contract for the second unit of the Steveston jetty, which they completed in July, 1917.

The Marsh, Hutton & Powers contract for the second unit of the Steveston jetty called for a length of 7,100 feet, but an extension of 1,800 feet was authorized on August 15, 1916, which makes a total length of jetty now completed of 15,800 feet from Steveston out towards the gulf of Georgia.

Dredging.

Work was started on April 12, completed on May 1, 1917, and consisted in deepening the channel in front of the British Columbia Cannery, situated on the south bank of the Fraser river, about 2½ miles below New Westminster.

The length of the cut was 1,520 feet, and the average width was 150; the dredging was done to 9 feet at low tide, which included 1-foot subgrade, and the amount removed was 50,580 cubic yards.

Sandheads.

The dredge 303 (*Fruhling*) has worked all the year at the sandheads at the mouth of the main channel of the Fraser river, from Steveston to the gulf of Georgia, a distance of about 5.5 miles.

During the fiscal year ending March 31, 1918, the dredge removed 684,800 cubic yards of material from various places in the channel; 31,200 yards were removed near buoy 24; 355,200 from the channel between buoys Nos. 1 and 3; 166,400 from channel between buoys Nos. 3 and 5, and 132,000 from channel between buoys Nos. 9 and 11.

North Arm.

The dredge *King Edward* dredged a channel from the main channel in the north arm of the Fraser river up to the Heaps Engineering Company's wharf, and deepened the water in front of Mercer and Dawe's ways, and wharf.

Work was started November 22 and completed December 13, 1917. The length of the cut was 835 feet, width 150, and 8 feet deep at low tide. Total amount removed was 24,740 cubic yards.

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GRAHAM'S LANDING.

The lower crossing of the Columbia river at this point was extremely narrow, and to permit of safer passage of vessels, further dredging was necessary. On April 2, 1917, P.W. dredge No. 311 began operations here, and completed work on April 30, 1917.

A cut 1,548 feet long and 75 feet wide was made giving a minimum depth of 8 feet of water at low water. The material, clay, amounted to 12,900 cubic yards, all overcast.

LADNER.

Work consisted in dredging a channel 1,320 feet long, to 10 feet at low tide, and the average width was 174 feet. The total amount removed was 84,830 cubic yards from deep water below the wharves at Ladner up to within about 100 feet from the Brackman-Ker Company's wharf. Work was commenced May 7 and completed August 6, 1917.

LILLOOET RIVER.

The Lillooet river drains the Lillooet lakes, and passes through a flat country known as Pitt meadows, before it empties into the Pitt river about two miles from its junction with the Fraser river.

A request was made and authority was granted to clear and deepen the channel of this river, from the cut made last fiscal year, up to the third bridge, a distance of about 3,500 feet; in this distance the channel was deepened and the bends in the river were straightened, the material being thrown out on each side. About 34,061 cubic yards of material were removed.

To do this work, a dredge was hired, at the rate of \$5 per hour while actually dredging, and delays of more than half an hour for breakdowns or putting on fuel were deducted. The total cost was \$2,266, which included \$245 for inspection. The work was started June 22, 1917, and completed August 15, 1917.

LONG BAY FLOAT.

On September 22, 1917, authority was given to move the government float from Hope point to Long bay; this was done on October 3, 1917, and there was no expenditure in connection with this work, except \$19.15 for some material for small repairs, etc.

NANAIMO.

Nanaimo is on the east coast of Vancouver island. For shipping coal, the main export of the port and many steamers of considerable size call for bunker coal. Two channels connect the harbour entrance with the coal wharves. They are on the north and south sides, respectively, of the middle bank in the centre of the harbour.

The Lobnitz rock breaker No. 2 worked on Nicol rock and blocks H and J, north channel, during the whole of the fiscal year, reporting an estimated quantity of 11,485 cubic yards of rock broken.

The departmental dipper dredge *Ajax* removed the following material between June 15 and July 9, 1917, and December 6, 1917, and January 10, 1918:—

{ Block H.		
{ Nicol rock.		600
		737
Removed at above locations, 1914-15 . .		
" " 1915-16 . .		
" " 1916-17 . .		

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This leaves an estimated quantity of 21,864 cubic yards (place measurement) still to be removed. No further work is required on block I which has now a minimum depth of 29 feet at low water. The present minimum depths at low water on block II is 27.2 feet; on block J, 23.8 feet; and Nicol rock, 21.2 feet.

NITINAT INLET.

The Nitinat inlet is situated on the west coast of Vancouver island about 80 miles from Victoria. The removal of a rock drying 2½ feet at low water in the narrow part of the Inlet leading from the open Pacific to the Nitinat lake has been removed to a depth of 10 feet at low water. The estimated quantity of rock (diorite) to be removed was 243 cubic yards, place measurement. Additional improvement has been made by the removal of rock from two projecting points in the narrows.

The work was undertaken between August 1 and October 28, 1917, and the total payment to the contractor being \$3,645.

OKANAGAN RIVER.

Between 18th April and 22nd October, 1917, the work consisted of completing the dredging required to deepen the navigable channel between stations 51 and 98 (1909 survey) to the established grade line and, where required, repairing the bank protection work when necessary, as the work of dredging was proceeded with. The material moved consisted of gravel and sand, of which 12,717 cubic yards was overcast and deposited on the bank or loaded on to the brush-and-piling protection work.

PENDER HARBOUR.

A channel was made through Canoe pass, which connects Bargain bay with Pender harbour, to enable small craft and fishing boats to go through the pass at a medium stage of tide. The length of the excavated channel was 485 feet, and an average depth of 3 feet was excavated, 10 feet wide at the bottom in the earth excavation, with slopes 2 to 1, and 14 feet wide at the bottom through the rock excavation, with slopes ½ to 1.

The work was started May 7, and was completed July 5, 1917.

PENTICTON.

On 23rd October, 1917, work was commenced at the Penticton Lumber Company's mill pond, for the purpose of lowering the floor of the pond to the grade line of the Okanagan river at that point. On the 6th November, dredging was suspended, to allow the crew to do some pressing work at the control dam at head of river, was resumed 4th December, and completed 14th December, 1917.

On this work, 2,442 cubic yards was overcast and 364 cubic yards re-overcast, a total of 2,806 yards, the material being mud, some of which was deposited on the east bank of the pond and the remainder dumped on the west side, and, later on, removed by dredge.

POPLAR ISLAND.

The dredge *King Edward* deepened the channel of the north arm of the Fraser river, at the head of Poplar island, to enable the Westminster Construction and Engineering Company to launch the four ships that they have under construction for the Imperial Munitions Board.

The work was started August 10 and completed November 22, 1917. The length of the cut was 1,050 feet, 400 wide, and 12 feet at low tide. The yardage removed was 73,680 cubic yards.

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SEA OTTER COVE.

Sea Otter cove is a small settlement at the northerly end of Vancouver island. During the past fiscal year, a floating landing was built and the sum of \$550 was paid to the contractors, Messrs. James MacDonald & Company for the construction, 20 by 11 feet with floating approach 220 by 6 feet. A portion of the approach and the float were lost while being towed to the site and are being replaced. The contractor is engaged, at the time of writing this report, on completing this work which has been considerably delayed owing to its inaccessability.

SQUAMISH.

The dredge *King Edward* proceeded to Squamish, at the head of Howe sound; 125,800 cubic yards of material were removed in 1916-17 and on June 13, 1917, work was resumed, but it was found that during the freshet in the Squamish river a great deal of material was brought down and filled up the dredging that had been done. On July 5, instructions were received to remove the dredge and work at Ladner; 43,135 cubic yards were removed during this time; this dredging was done to 8 feet at low tide, but this depth could not be maintained on account of the material that was brought down the river at low tide.

VANCOUVER.

Vancouver is the largest city on the west coast of Canada, has a population of 110,000, and is the western terminus of several railways, also the Canadian shipping point to China, Japan, and all oriental ports.

The dredging done this year, consists in the removal of 234,780 cubic yards from the north side of the Narrows, and 117,910 from Parthia shoal. The object of the work as originally laid out was to widen the Narrows to 1,200 feet, deepen the channel to 35 at low tide and to remove Parthia shoal to the same depth. The work on the north side of the channel was started April 12, and October 18, 1917, operations were commenced on Parthia shoal, which was finished on March 19.

Parthia shoal was dredged to 36 feet, which included 1 foot subgrade, but it was found by sweeping that there were large boulders there which were too big for the dredge to handle. The total amount of material removed from the north shore of the Narrows and Parthia shoal since work commenced is 4,139,260 cubic yards, scow measurement.

VICTORIA.

Piers 2 and 3.

Filling was done between the walls of the piers and behind the bulkheads; 534,482 cubic yards of backfill were placed during the year, completing the work in March.

The rubble walls between the bulkheads and shore were completed by the addition of 8,260 tons of rock.

The extension of the Montreal street surface drain made necessary by the reclamation of the foreshore was carried out at a total cost of \$790.18.

Freight Shed on Pier No. 2.

Work of construction of a freight shed, 201 by 703 feet, to be used by the Imperial Munitions Board as an assembly plant for the installation of machinery in the wooden shipping trunks, the contract was commenced on 26th September and virtually completed by the end of January, at a cost of \$217,629.44.

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Ferry Slip and Trackage.

The construction of a ferry slip and the necessary trackage having a total length of 6,600 feet consisting of a main line with tail track, three tracks on approach trestle and apron, surface tracks on both sides of pier 2, depressed track in the centre of pier 2, and storage track.

The slip designed to meet any three-track car barge being operated by either the Canadian Pacific Railway or the Great Northern Railway, was commenced in December and was in operation on March 26, 1918.

Dredging.

The dredging carried out during the past year had as its main object the further improvement of the channel to James bay by the removal of rock to the south of Pelly island, also the removal of rock to the east of Songhees point to provide additional facilities for vessels leaving the Canadian Pacific Railway wharves and the removal of Turpel's rocks in the centre of the upper harbour. The navigable area is being gradually increased year by year, and the grade of 20 feet below low water over areas already covered is maintained. The following plant, working on single shift, assisted with the above work: Dredges *Ajax* and *Mudlark*, and Lobnitz rock breaker No. 1 worked during the whole of the year, while rock-drill plant No. 2 worked from April 1 to May 19, and July 25 to October 12. The dredge *Ajax* paid two visits to Nanaimo during the year, also working at Powell river.

Upper Harbour.—Since the establishment of the shipbuilding industries in the upper harbour, the work of the dredging plant has been concentrated to a considerable extent in improving that part of the harbour fronting the launching ways of the Cameron-Genoa Shipbuilders and the Foundation Company, with the result that the areas fronting the launching ways of both these yards have been deepened to 20 feet below low water. The removal of Turpel's rocks Nos. 1 and 2 in the centre of the upper harbour has been undertaken, and where a former depth of 6 feet below low water obtained, there is now a depth of 20 feet below low water. The *Ajax* also dredged to grade a considerable area between the Victoria Machinery Depot and the Esquimalt and Nanaimo Railway bridge from depths of 16 to 19 feet below low water.

Lower Harbour.—Hospital rock, east of Songhees point, was cut back about 80 feet, giving this additional width at the point where the Canadian Pacific Railway ferry boats go astern before leaving the harbour. The channel lying south of the Esquimalt and Nanaimo Railway bridge was deepened where silting up had taken place and additional depth provided fronting the Hudson's Bay Company's wharf. The north side of the main channel between Songhees point and the entrance to West bay has been further improved during the year, resulting in an additional width of 100 feet by the removal of rock from the south of Pelly island, and an increased width of 150 feet has been provided between Pelly island and the entrance to West bay.

The middle of the main channel immediately south of Pelly island was deepened at points where silting-up had taken place. At times when the dredges were not engaged on work of greater importance the work of providing an alternative channel to the north of Pelly island has been undertaken. A further improvement has been made at Shoal point resulting in an additional width of 100 feet and the original sharp turn for vessels entering and leaving the harbour has been greatly improved and has enabled the beacon to be placed 170 feet southwest of its former position. A considerable area in West bay and fronting the outer wharves has been dredged by the Pacific Dredging Company to provide fill for the piers under construction at Ogden point.

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Hull, Ile aux Coudres, Ile Perrot North, Isle Verte, Lacolle, Lake Megantic, Long Rapids, Lotbiniere, Magog, Malbaie, Masson, Mont Louis, Newport, Norway Bay, Phillipsburg, Pierreville, Pointe à Brousseau, Point à Elie, Pointe St. Pierre, Point Shea, Pont Laurier, Rimouski River, Rivière au Renard, Rivière des Vases, Rivière Ouelle, Roberval, St. Alexis, St. Alphonse, Ste. Anne, St. Andre, St. Anne de Beaupre, Ste. Anne des Monts, St. Charles, St. Charles de Caplan, St. Denis, St. Eloi, Ste. Famille, Ste. Felicite, St. Francois Sud, Ste. Genevieve de Batiscan, St. Gregoire, St. Ignace de Loyola, St. Irenee, St. Jean des Chaillons, St. Jean d'Orleans, St. Jerome, St. John's, St. Laurent, St. Majorique, St. Methode, St. Michel, St. Paul de l'Ile aux Nois, St. Pierre les Becquets, St. Roch, St. Simeon, St. Ulric, St. Zotique, Sabrevois, Saguenay River, Sept Isles, Trois Laes, Trois Pistoles, Varennes, Vauchan, Woburn.

Ontario. Bayfield, Beaumaris, Bowmanville, Bracebridge, Bronte, Bruce Mines, Burlington Channel, Charlton, Christian Island, Chute à Blondeau, Cobourg, Cumberland, Desbarats, Goderich, Grand Bend, Haileybury, Kincardine, Kingsville, Lakeport, Leamington, L'Orignal, Michipicoten, Minaki, New Liskeard, Nipissing, Oshawa, Owen Sound, Pelee Island, Pembroke, Petawawa, Peterborough, Port Colborne, Port Hope, Port Stanley, Rainy River, Rondeau, St. Joseph, Saugeen River, Sault Ste. Marie, Shrewsbury, Silver Centre, Sturgeon Falls, Thornbury, Toronto, Wendover, Wheatley, Windsor.

Manitoba.—Arnes, Gimli, Ilnausa.

British Columbia.—Bindley's Landing, Bold Point, Campbell River, Clayoquot, Comox, Crofton, Dignans Bay, Eagle Cliff, Gower Point, Grace Harbour, Grantlams Landing, Halfmoon Bay, Hammond, Haney, Hatzic, Holberg, James Island, Langley, McDonalds Landing, McKays, Matsqui, Metchosin, Mirror Lake, Mission, Mount Lehmen, Nootka Island, Port Clements, Port Moody, Powell River, Prince Rupert, Quatsino, Riverside, Roberts Creek, Rocky Point, Safety Cove, Sapperton, Savary Island, Sidney Island, Smiths Landing, Sonitula, Ucluelet, Union Bay, Vancouver, Whannock, Williams Head, Willow Point.

DREDGING OPERATIONS.

Contract Dredging, 1917-18.

West St. John, N.B. (Deep water berths.)

Under contract No. 11418 with J. S. Gregory. Dredge *Keta*.

Quantity removed: 17,159 cubic yards, scow measurement, at 40 cents per cubic yard. Class B.

Amount passed for payment \$6,924.82.

Work commenced October 26, 1917; completed December 8, 1917.

Object of work: Improvement of deep-water berths.

• *Doucet's Landing, Que.*

Under agreement with La Cie Générale d'Entreprises Publiques. Dredge *New Welland*.

Quantity removed: 2,910 cubic yards, scow measurement at 30 cents per cubic yard. Class B.

Amount passed for payment, \$873; inspection \$14; total expenditure \$887.

Work commenced November 10, 1917, completed November 12, 1917.

Object of work: to dredge a basin in front of the Grand Trunk Railway wharf.

Batiscan, Que.

Under agreement with La Cie Générale d'Entreprises Publiques. Dredge *New Welland*.

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Quantity removed: 23,704 cubic yards, scow measurement, at 18 cents per cubic yard. Class B.

Amount passed for payment, \$4,266.72; inspection, \$184.44; total expenditure, \$4,451.16.

Work commenced October 13, 1917, completed November 7, 1917.

Object of work: to improve channel entrance to Bastican wharf.

St. Maurice River, Que., (Western channel).

Under contract No. 11117 with La Cie Générale d'Entreprises Publiques. Dredge *New Welland*.

Quantity removed: 94,187 cubic yards, scow measurement at 9 cents per cubic yard. Class B.

Amount passed for payment, \$8,476.83; inspection, \$312.05; total expenditure, \$8,788.88.

Work commenced August 27, 1917, completed October 5, 1917.

Object of work: completion of channel in western outlet of river at Three Rivers.

Port Arthur, Ont.

Under contract No. 9490 with W. E. Phin. Dredges *Excelsior* and *Dominion*.

Quantity removed: 220,277.58 cubic yards, scow measurement, at 13 cents per cubic yard. Class B, (927.88 cubic yards, class A at \$2, included).

Amount passed for payment, \$30,294.71; inspection, \$717.25; total expenditure, \$31,011.96.

Work commenced June 12, 1917, suspended for season December 8, 1917.

Object of work: Widening and deepening of main harbour south, widening channel to Kings elevator, completion of dredging of joint slip between Sask. Co-operative and Grain Growers Elevators and dredging of basin and slip at Richardson elevator.

Kincardine, Ont.

Under agreement with C. S. Boone Dredging and Construction Co. Dredge *Kingsford*.

Quantity removed: 16,241 cubic yards place measurement at 34 cents per cubic yard. Class B.

Amount passed for payment, \$5,521.94; inspection, \$113.81; total expenditure, \$5,635.75.

Work commenced July 20, 1917, completed August 24, 1917.

Object of work: to remove material on account of shoaling in the harbour as result of unusual freshet.

Wharves, Port of Montreal, N. B.

Under agreement with Peter England, dredge *Peter England*.

Quantity removed: 2,003.1 cubic yards scow measurement, at 40 per cubic yard, class B.

Amount passed for payment, \$801.24, inspection, \$33.75, total expenditure, \$834.99.

Work commenced June 1, 1917, completed June 29, 1917.

Object of work: to provide access at all stages of water to the quarantine station on Middle island by dredging a channel 20 feet wide 2 feet deep across shoal lying between the island and the mainland and by dredging an approach channel 2 feet deep, about 200 feet long and 20 wide with basin 40 by 40 feet at the wharf.

Wharves, Port of Montreal, N. B.

Under agreement with F. A. Fowlie, dredge *Fowlie*.

Quantity removed: 2,003.1 cubic yards scow measurement, at 24 cents per cubic yard, class B.

Amount passed for payment, \$2,667.04; inspection, \$234.65; total expenditure, \$2,901.69.

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Work commenced May 23, 1917, completed August 2, 1917.

Object of work: to provide for completion of dredging the channel entrance at Church River.

St. Peter Narrows, N.S.

Under contract No. 11171 with Costal Dredging & Construction Company dredge.

Cadeco.

Quantity removed: 30,553 cubic yards. Place measurement at 26 cents per cubic yard class B and 15 cubic yards class A, at \$5.

Amount passed for payment, \$8,629.84; inspection, \$165; total expenditure, \$8,794.84.

Work commenced May 21, 1917, completed, July 12, 1917.

Object of work: to improve passage through St. Peter's narrows.

Cobourg, Ont.

Under agreement with R. Weddell Company, dredge *Trenton*.

Quantity removed: 8,172 cubic yards, place measurement, at 39 cents per cubic yard, class B.

Amount passed for payment, \$3,187.08; inspection, \$149.05; total expenditure, \$3,336.13.

Work commenced May 31, 1917, completed July 20, 1917.

Object of work: to provide necessary depths in shoal areas at entrance to harbour and to provide necessary depth in additional areas in inner harbour.

Fort William, Ont.

Under contract No. 7339 with Great Lakes Dredging Co., dredges *Dominion* and *No. 6*.

Quantity removed: 911,977 cubic yards scow measurement, at 10½ and 22½ cents per cubic yard, class B.

Amount passed for payment, \$156,381.20; inspection, dragging and sweeping, \$2,601.50; total expenditure, \$158,982.70. Drawback returned, \$15,638.12.

Work commenced May 15, 1917. Suspended for season November 27, 1917.

Object of work: cleaning up of shoals in and widening Kaministiquia and Mission rivers, including Westfort turning basin.

Picnic Island, Ont.

Under contract No. 7816 with C. S. Boone Dredging and Construction Co.

Revision of final estimate, February, 1917.

Amount passed for payment, \$2,787.38.

Completed November 3, 1916.

Port Stanley, Ont.

Under agreement with M. T. Hogan.

Quantity removed: 465 cubic yards, scow measurement, at 18 cents per cubic yard, class B.

Amount passed for payment, \$83.70.

Completed June 29, 1917.

Object of work: dredging along revetment wall.

St. John Harbour, N.B. (Berths 15 and 16.)

Under agreement with J. S. Gregory, dredge *Keta*.

Quantity removed 27,456 cubic yards, scow measurement, at 42 cents per cubic yard, class B.

Amount passed for payment, \$1,138.16; lifting sunken timber, \$100; total expenditure, \$1,238.16.

Work commenced April 3, 1917, completed April 16, 1917.

Object of work: cleaning up deep water berths at new docks.

Fords Mills, Richibucto River, N.B.

By day labour, under District Engineer Stead.

Quantity removed: 412 cubic yards, class B.

Amount passed for payment, \$422.08; total expenditure, \$422.08.

Work commenced October 16, 1917, completed November 13, 1917.

Object of work: Dredging of cut to allow scow to ascend to landing.

Lillooet River, B.C.

Under agreement with J. W. Pike, dredge *Beaver No. 2*.

Quantity removed: 34,061 cubic yards, place measurement, class B., \$5 per hour for hire of dredge.

Amount passed for payment, \$2,230; inspection, \$36; total expenditure, \$2,266.

Work commenced June 20, 1917; completed August 15, 1917.

Object of work; completion of channel to upper bridge.

Canoe Pass, Pender Harbour, B.C.

Under direction of District Engineer Worsfold, by day labour.

Quantity removed: 1,010 cubic yards, solid rock, loose rock, sand, clay and clam shells.

Amount passed for payment, \$1,614.

Object of work: to clean out channel through Canoe pass between Bargain harbour and Pender harbour.

River St. Louis, Que.

Day labour under direction of District Engineer Girard.

Amount passed for payment: To rebuild temporary bridge, \$148.56; to construct proper abutments for permanent bridge at Pont Rouge, \$369.40; total expenditure, \$517.96.

Inverness Harbour, N.S.

By day labour, under direction of District Engineer Bernaseoni.

Quantity removed: 3,155 cubic yards.

Amount passed for payment, \$1,500.

Object of work: to dredge cut through sand bar.

Picnic Island, Ont.

Under direction of District Engineer Fuller, by day labour.

Amount, \$670.82.

Object of work: Fitting out sweeping plant and inspection.

Thames River, Ont.

Under direction of District Engineer Stevens.

Amount passed for payment, \$11.25.

Object of work: removal of logs.

Richibucto Cape, N.B.

By day labour, under direction of District Engineer Stead.

Quantity: 4,300 cubic yards.

Amount passed for payment, \$1,539.67.

Object of work: Cleaning out of entrance channel through sand bar at entrance to harbour and to provide a basin inside new pier-head to extend through to originally built north breakwater.

Clementsport, N.S.

By day labour, under direction of District Engineer Bernaseoni.

Amount passed for payment, \$1,100.00.

Amount passed for payment, \$1,100.00.

Object of work: to dredge areas to complete channel.

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St. Charles River, N.B.

Under District Engineer Stead, by day labour.

About 1,500 cubic yards.

Amount passed for payment, \$481.06.

Object of work: to improve worst sections of the river to provide channel for delivery of shell mud and fertilizer to farmers.

St. John River, N.B.

Removal of snags under direction of District Engineer Goodspeed, by day labour, 81 snags removed; 44 logs removed.

Amount passed for payment, \$1,983.

Shediac bay (Grandigue), N.B.

Under direction of District Engineer Stead, by day labour.

Quantity removed: 25,849 cubic yards, class "B".

Amount passed for payment, \$1,032.59.

Object of work: to provide a minimum width of 36 feet in the cut leading from deep water in Shediac bay to Grandigue and Shediac island wharves in Shediac harbour.

Stave River, B.C.

Under direction of District Engineer Worsfold, by day labour.

Quantity: 3,200 cubic yards.

Amount passed for payment, \$1,752.59.

Object of work: to give sufficient water at log dump to float logs brought down from Stave lake.

Nitinat Lake, B.C.

Removal of rock under agreement with McDonald and Rice.

About 243 cubic yards solid rock.

Amount passed for payment, \$3,645.

Removal of a rock pinnacle in the entrance channel to Nitinat lake.

Dalhousie, N.B.

Under contract No. 9997 with Northern Dredging and Construction Company

Drawback on work discontinued in 1914.

Payment under authority of O.C. April 26, 1918, \$497.21.

DISBURSEMENTS DURING CALENDAR YEAR 1919

Date	Date	Locality	Material	Quantity, cu. yds.	Locality Cost, \$ cts.	Total Cost, \$ cts.	Cost Per cu. yd.
MARITIME PROVINCES.							
Nov 1	May 21 Sept. 1 Sept. 5 Oct. 10	St. John Channel, N.B. Winter Port Bar, St. John, N.B.	Mud and sand Mud and sand	100,556 43,682	44,047 35 18,709 18		438 428
Nov 2	July 5 Aug. 11, Sept. 12 Oct. 5 Aug. 13 Sept. 11 Oct. 6 Nov. 13	Campbellton, N.B., (Govt. wharf)... Mission Pt. (Champlain wharf). Bathurst, Tancoiche Bar, N.B.	Logs, bark, mud, sand, gravel, roots, brush. Logs, sand, stones, stumps, gravel, sticks, sawdust. Clay, sand, logs, cement	27,350 13,600 12,600	15,900 60 9,855 06 10,103 50	62,756 53	435 581 724 802
Nov 3	May 20 Oct. 18, Oct. 19 Nov. 12	Bathurst, N.B. Campbellton, Oak Pt.	Gravel, clay, sand and sticks. Sand and gravel.	53,550 114,297 30,247	..... 24,432 34 3,842 19	35,859 16	670 213 127
Nov 4	June 19 Nov. 5	Pictou, East River, N.S.	Mud, stone, clay, gravel, oyster shells, shale rock.	144,544 318,449	..... .....	28,274 53 33,638 84	195 106
Nov 5	June 14 Sept. 20 Oct. 18 Dec. 6 Sept. 21 Oct. 17, Dec. 7 '31	This dredge was lost Liverpool Channel, N.S. Sydney, N.S. Yarmouth, N.S.	Sand, mud, gravel, sawdust, rocks, stones. Mud, sawdust, gravel, sand, rocks, stones No dredging done on account of weather.	16,610 4,780 ..	23,685 57 2,109 92 2,186 72	10,543 02	508 441
Nov 6	May 21 July 28 July 30 Aug. 9 Aug. 10 Nov. 5	Bridge town, P.E.I. Grand River, Miramichi Wharf, P.E.I. Beach Point, P.E.I.	Mud. Mud and sand Mud and sand	51,390 33,700 4,500 27,468 65,668	..... 9,920 98 1,238 15 8,331 31	27,982 21	544 294 302 302 298
Nov 10	May 31 Oct. 22 Oct. 23 '31	Not in commission..... North Rustico, P.E.I. Rusticoville, P.E.I.	Mud, sand, brick, clay and rock..... Mud and sand	32,355 700	13,367 38 436 80	3,794 68	411 624

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"No. 12"	Nov. 1 20.	Alberton, P.E.I.	Mud, sand, clay, rock and stone.	3,700	1,686 96	455
"No. 13"	June 29-Oct. 20.	Not in commission.		36,755	15,431 14	420
"No. 14"		Shippegan, N.B., (Wharf and Gully).	Mud, sand, clay, rock, gravel, stone.	52,703	1,330 06	527
Tug "Canso"		Not in commission			27,785 88	
"No. 15"		Rented during season.			1,602 39	
	July 9-Aug. 4	West Dublin, N.S.	Mud	2,881	10,702 11	513
	Aug. 10-30.	Parks Creek, N.S.	Mud, stone.	1,739		602
	Sept. 4 18	East Middle La Have, N.S.	Mud and gravel	1,558		50
	Sept. 24-Nov. 14	Chester Basin, N.S.	Mud and gravel.	5,570		407
	Nov. 17-27.	La Have, at Reinhardt's & Boehmer's wharves.	Mud, brick and gravel.	775		764
				12,523	6,095 34	557
"Lobnitz No. 3."		Not in commission			2,922 76	
"Stone-lifter No. 1."		Not in commission			997 92	

ONTARIO AND QUEBEC.

"No. 4"		Not in commission			1,694 23	
"No. 101"		Not in commission			1,642 41	
"No. 102"	June 28-June 30. July 23 Oct. 17. Nov. 21-24.	Poupore, P.Q.	Clay, logs, stumps and boulders	22,739	6,750 66	296
	June 23-27. July 9-14	La Salette, P.Q.	"	3,120	1,119 99	368
	July 16-21	Bigelow Cut, P.Q.	"	1,590	502 60	316
	Oct. 18-Nov. 20	Long Rapids, P.Q.	"	2,730	2,332 51	854
				30,179		355
"No. 103"	June 4 16. June 25 Nov. 20.	Hawkesbury, Ont.	Clay, pulp, logs, boulders	59,613	15,209 37	255
	June 18 23	Grenville, P.Q.	Rock and gravel	455	408 46	897
				60,068		26
					15,617 83	
"No. 106"	May 14 16	Papineauville, P.Q.	Clay and bark.	999	308 20	208
	May 21 June 30	Contrecoeur, P.Q.	Clay and sand	12,078	1,043 33	336
	July 2-7	Berthierville, P.Q.	"	401	210 90	503
	July 9-Oct. 15	Ile au Foin, P.Q.	"	28,666	11,176 19	389
				42,144		373

Statement of the Department of Public Works, City of New York, for the year 1919, showing the amount of money expended for the construction of public works, and the amount of money received from the sale of the same.

Item	Location	Material	Quantity	Unit Price	Total Cost	Per Cent Paid
1000	Manhattan	Gravel, rock, clay, boulders, sand	71,918	15,000.28	1,080,280.00	201
1001	Manhattan	Foundation, clay, log, boulders and boulders	93,981	19,881.48	1,866,810.00	201
1002	Manhattan	Gravel, rock, clay, boulders, sand	168,929	15,000.28	2,533,940.00	206
1003	Manhattan	Foundation, clay, log, boulders and boulders	110,755	19,881.48	2,200,000.00	206
1004	Manhattan	Gravel, rock, clay, boulders, sand	12,801	15,000.28	192,000.00	201
1005	Manhattan	Foundation, clay, log, boulders and boulders	16,156	19,881.48	321,000.00	206
1006	Manhattan	Gravel, rock, clay, boulders, sand	60,601	15,000.28	909,000.00	187
1007	Manhattan	Foundation, clay, log, boulders and boulders	76,760	19,881.48	1,525,000.00	183
1008	Manhattan	Gravel, rock, clay, boulders, sand	98,68	15,000.28	1,480,000.00	187
1009	Manhattan	Foundation, clay, log, boulders and boulders	11,446	19,881.48	227,000.00	184
1010	Manhattan	Gravel, rock, clay, boulders, sand	98,449	15,000.28	1,477,000.00	189
1011	Manhattan	Foundation, clay, log, boulders and boulders	208,577	19,881.48	4,145,000.00	185
1012	Manhattan	Gravel, rock, clay, boulders, sand	2,561	15,000.28	38,400.00	201
1013	Manhattan	Foundation, clay, log, boulders and boulders	2,561	19,881.48	50,900.00	206
1014	Manhattan	Gravel, rock, clay, boulders, sand	20,440	15,000.28	306,600.00	201
1015	Manhattan	Foundation, clay, log, boulders and boulders	22,100	19,881.48	440,000.00	206
1016	Manhattan	Gravel, rock, clay, boulders, sand	31,650	15,000.28	474,600.00	201
1017	Manhattan	Foundation, clay, log, boulders and boulders	3,273	19,881.48	65,000.00	206
1018	Manhattan	Gravel, rock, clay, boulders, sand	6,917	15,000.28	103,750.00	201
1019	Manhattan	Foundation, clay, log, boulders and boulders	10,150	19,881.48	201,600.00	206

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MANITOBA, SASKATCHEWAN & ALBERTA.

"No. 201"	May 31 Aug. 16... Aug. 17 Oct. 30	Mouth of Red River, Man. The Forks, Man.	Mud, sand and clay Sand, hardpan and mud	23,696 47,330	6,481 42 9,594 75	274 293
"No. 202"	May 31 June 6 June 6 Aug. 3 Oct. 20 30 July 30 July 31 Aug. 1 Oct. 20	Repair Ship, Selkirk, Man. Slough, Selkirk, Man. Big George Island, Man.	Clay Clay Boulders and sand	953 26,963 3,161	732 80 9,970 83 3,042 39	297 769 870 963
No. 204		Not in commission		31,077	13,746 02	142
"No. 205"	May 31 July 2 July 16 30 July 31 Oct. 10 July 3 July 16 Oct. 11 Oct. 22 Oct. 23 Nov. 2	Mouth of Red River, Man. Park Pt. or Crescent Island Hanasco, Man. Sugar Island, Red River, Man. Slough, Selkirk, Man.	Mud Mud and sand Sand and clay Mud and sand Clay	23,800 64,280 6,100 6,600 6,100	1,539 44 8,082 85 1,110 27 1,061 43 1,273 69	158 126 182 163 209
"No. 208"		Not in commission		111,780	16,067 68	144
"No. 210"		Not in commission			791 91	
		Not in commission			1,226 21	

BRITISH COLUMBIA.

"No. 301"	Jan. 1 June 11 July 21 Dec. 3 June 12 July 9 Dec. 1 31 July 10 July 20...	Victoria Harbour, B.C. Nanaimo Harbour, B.C. Powell River, B.C.	Mud, hardpan and broken rock Mud and broken rock Mud and hardpan	120,218 8,446 2,334	43,285 62 9,175 43 983 92	342 108 421
				136,998	53,144 97	390
"No. 302"	Jan. 1 Mar. 31 Mar. 31 Dec. 31	Kootenay Landing, B.C. Sunshine Bay, B.C.	Sand and silt Tied up	18,495 ..	4,913 26 953 41	317
				18,495	5,866 67	317
"No. 303"	Jan. 1 Nov. 28	Sand Heads, B.C.	Clay and sand	706,400	13,267 85	651

DEPARTMENTAL DREDGES. CALENDAR YEAR 1917—Concluded

BRITISH COLUMBIA—Concluded

Dredge	Date	Locality	Material	Quantity, cu yds.	Locality Cost, \$ cts.	Total Cost, \$ cts.	Cost Per cu. yd.
No. 304	Jan 1 Jan 9	Kelowna Saw Mill, B.C.	Sand	870	490 13		56
	Jan. 10 Jan 11	C.P.R. Wharf, Kelowna, B.C.	Sand	25	20 64		82
	Jan 12 Jan 19	Control Dam, Okanagan River, B.C.	Clay	164	128 95		78
	April 18 Oct. 22	Okanagan River	Gravel and sand	12,717	6,077 43		47
	Oct. 23 Nov 6	Penticton Lumber Co.	Mud	2,806			
	Dec 4 Dec 14	Mill Pond	Sand	483	1,119 52		53
				17,065		7,836 67	459
	Jan 1 April 11	Squamish, B.C.	Sand and gravel	124,215	13,260 56		106
	June 4 July 14						
	April 12 May 5	Anneville Bar, B.C.	Silt.	53,630	4,859 22		99
No. 305	May 7 May 22	Ladner, B.C.	Silt and clay	84,830	8,700 70		102
	May 23 June 2	Deas Island, B.C.	Silt, debris	12,840	1,872 49		145
	Aug. 9 Nov. 22	N. Arm of Fraser, B.C.	Coarse sand	73,680	22,354 25		303
	Nov. 23 Dec. 15	Heaps Eng. Works, B.C.	Coarse sand	24,740	4,560 43		184
	Dec 17 Dec 31	Port Gageham, B.C.	Hardpan and boulders	825	2,185 14		2 648
				374,760		57,792 79	154
	Jan 1 Oct 15	First Narrows, B.C.	Gravel	400,790	85,100 67		212
	Oct 16 Dec 31	Parthia Shoal, First Narrows, B.C.	Boulders and gravel	62,920	18,289 77		29
				463,710		103,390 44	223
	Jan 1 Dec 31	Victoria Harbour, B.C.	Grey clay	109,050		43,310 46	397
No. 307 No. 309 No. 311		Did not work, laid up at Chase, B.C.				24 84	
	Jan. 1 Jan. 31	Forest Glen "A", B.C.	Sand	14,550	1,376 47		995
	Feb. 1 Mar 31	Cottonwood Point, B.C.	Sand and gravel	19,650	2,496 94		129
	April 1 May 7	Graham's Landing, B.C.	Clay	12,900	1,757 52		136
	Nov. 5 Dec. 31	Forest Glen "B", B.C.	Sand	33,200	4,146 09		125
	May 8 Nov 4	Annual overhaul			1,802 68		
				80,300		11,579 70	144

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"No. 313"	Jan. 1-Jan. 22.....	Victoria Harbour, B.C.....	Rock and boulders	525	527 13	1 00
	Jan. 23-Aug. 22	Courtenay, B.C.	Gravel and boulders	9,086	8,465 30	931
	Aug. 3-Oct. 3.....	Nanaimo Harbour, B.C.....	Broken rock.....	4,351	1,739 04	.....	399
				13,962	.....	10,731 47	769
Rockbreaker "No. 1"	Jan. 1 Dec. 31.	Victoria Harbour, B.C.....	Rock.....	7,084	.....	28,104 72	3 96
Rockbreaker "No. 2"	Jan. 1 Dec. 31.	Nanaimo Harbour, B.C. ..	Rock.....	6,119	.....	23,049 20	3 76
Drilling Plants "No. 1 and 2"	Jan. 1 Oct. 13.....	Victoria Harbour, B.C....	Rock	2,041	12,757 73	6 25

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DRY DOCKS.

CHAMPLAIN DRY DOCK.

The rock excavation was completed by the end of October, 1917, to its full depth and width, except for little trimmings on top, which will be done next year.

The total quantity of excavation, this year, amounted to 76,100 cubic yards.

The concrete walls of the dock were completed from station 7+25 up to station 0+90, except for the timber slide in the first part of the dock, and from section 0+90 to 0+00, the walls on each side are more than half completed. The bottom of the dock is completed to station 0+90. Early in the spring, they completed the pump-house foundations. The concrete work could have been completed at the head of the dock but owing to unusual cold weather and owing to the testing of the floating caisson which took more time than they expected, they had to stop work for the winter.

During this year, the total yardage of concrete was 37,400 cubic yards in the dock proper and 5,500 cubic yards for the crib superstructure.

During this season, two cribs were sunk, one 75 feet long at the north end of the western guide pier, and the other one at the end of the eastern guide pier. There are two more cribs to be sunk, they were to be set in place this fall, but the dredge did not have time to clean the seats before the ice formation.

The total yardage of cribwork amounted to 5,300 cubic yards.

The Montreal Harbour Commission dredge started work July 2 and stopped November 16. During this period, the channel was dredged out to 30 feet at L.W.O. S.T. After the main dredging was done, cleaning up the channel bottom was started but as it was late the dredge had to leave for the winter.

The only work left on submarine rock dredging for next spring is to complete the cleaning of the channel bottom and to complete the dredging of the two crib seats.

The total yardage taken out this summer amounts to 34,400 cubic yards.

In the boiler room and generator room, the balance of machinery has been all set up but not properly tested yet.

The total work done in power house this year amounted to \$20,980.70.

Early in the spring, the foundations were completed and soon after, pump house was built. During the summer and the fall, the erection of the three main pumps and of the two drainage pumps were carried out. The tile work in pump house is partly finished and will be completed by the spring.

The two caissons were completed this year, except for the floating caisson on which the pumps are set and not yet tested yet.

All the sluice gate valves were set and coupled with their motors, and 70 per cent of the underground wiring of all sizes is completed.

SHIP REPAIRS.

During the last year ending March 31, 1918, a large ship was docked for cleaning, painting and repairs, occupying the dock one hundred and ten days in all.

Repairs were effected to Nos. 1, 2, and 3, main boilers by the use of an electric welding plant, which will add considerably to the life of each boiler.

The coal bunkers, a building 57 by 32 feet, was removed and replaced by a new building on concrete foundations.

The lumber room was replaced by a new building 20 by 10 feet, constructed on concrete foundations.

Corrugated iron was used in the buildings constructed.

The staff has been otherwise variously employed in attending to the docking and undocking of ships, the care of buildings and machinery, and special attention was given to the inside chambers of the caisson by sealing and painting. With the excep-

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tion of some minor renewals, the plant is now in good working condition. The electrically-driven 6-inch vertical centrifugal pump installed in the past fiscal year has proved very satisfactory. The total expenditure to March 31, 1918, was \$17,811.27.

SELKIRK.

Repair slip.—The repair slip was operated as usual this season. A total tonnage of 4,666 was handled. Of this, 1,284 tons were departmental and 3,382 tons commercial.

Total revenue from this plant amounted to \$1,714.36. The expenditure is \$3,512.21.

LOCKS AND DAMS.

QUEBEC.

OTTAWA RIVER.

Timiskaming reservoir.

Downstream from the Ontario sluices, all holes scoured in the riprap apron were filled with quarried rock at the beginning of the year. The spring flood ran 80,000 c.f.s. maximum, and there was about 58,000 c.f.s. mean flow for June. The result was that scouring in the heavy rock bed again took place, and re-filling was necessary, the work being done between December and March.

The winter was extremely cold, and labour was poor and scarce, so the re-filling was slow until the middle of January. With increased force, better progress was made and as far as possible large rock was used, much of it being $\frac{3}{4}$ cubic yards to $1\frac{1}{2}$ yards. To end of January, 2,800 cubic yards were placed, and in February, 1,500 yards more up to the 18th, when track had to be taken up from below the Ontario sluices in order to feed storage.

During March, 1,200 cubic yards of rock of large size was placed below the Quebec sluices. Some excavation, chiefly boulder material, was done upstream from the Ontario dam in order to clear the approach flow-way of the ridges left by steam shovel. All excavation was closed down in April.

Timiskaming reservoir was filled to elevation 587.9 by May 25, 1917, and remained so till the middle of September. Storage was given out for about a month, the surface falling about $2\frac{1}{2}$ feet. The autumn rains refilled the reservoir to elevation 586, and from December till end of March about 10 feet was drawn off.

Quinze reservoir.

During the spring, arrangements were completed with regard to the flooded timber around the reservoir and, after a conference with the lumbermen and power owners, it was agreed to fill the reservoir to elevation 864 as soon as possible. This meant raising the main road at several points in Latulippe township, and reconstructing the bridges, the work being begun in June. All the bridges were finished by the winter but bad weather in this clay and the difficulty in securing teams and labour delayed the earthwork, so that it could not all be finished before freezing weather.

Six pile trestle bridges were constructed, the total length being 800 feet, and 1,850 feet of approach embankments were made. Besides this, 1,500 feet of road diversion was finished.

The Latulippe settlers asked very unreasonable prices for the land flooded, and refuse to consider the offers made by Mr. Cross. Gradually, however, the greater number have accepted the very generous prices of \$50 per acre for cultivated, \$20 per acre for slash, and \$5 per acre for bush land.

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At Quinze dam itself some repairs were made to the concrete piers, where spalling continues from time to time.

The log drive was passed without trouble in the spring, and then a storage of about 5 feet in depth was held upon the reservoir.

The reservoir was filled to elevation 859.5 by the end of May, 1917. The spring flood ran 42,600 c.f.s. maximum and a mean of 36,000 c.f.s. for June. About 4½ feet of storage was used to October, then the autumn rain raised the surface to elevation 857 in the first week of November, whence it fell, to 1st January, 3½ feet, and another foot to 31st March. The shallow channel between the islands at the head of the river prevented its being drawn down further, although the sluices were wide open.

Kipawa reservoir.

There was no work of any consequence done in connection with the dams. The reservoir was filled to elevation 884.9 on June 6, 1917, and remained about that level to the middle of July, whence it fell 3½ feet to the middle of October. It was then fairly constant till 20th January, 1918, whence it was drawn down 5 feet to the end of March. The greatest outflow was 7,400 c.f.s., June 9, 1917, and the mean for June was 4,700 c.f.s.

Chaudière Falls, Ottawa.

The result of the storage may be judged from the following mean monthly flows at the Chaudière mills:

October.	27,800 c.f.s.	January	21,600 c.f.s.
November.. . . .	29,000 "	February	19,300 "
December.. . . .	27,000 "	March.. . . .	21,300 "

It will be seen that, generally, the flow was over 20,000 c.f.s., which is considered ample for all the manufacturers. Under natural conditions the flow would not have been half the above in February and March, as the winter was one of the coldest on record, and for ninety days there was no thaw. In February, there was a minimum of 17,300 c.f.s. due to anchor ice conditions in the Deschenes rapids. Under natural conditions anchor ice would have affected the flow all through the winter.

Metering.

Flow measurements have been continued at La Passe in order to fix the flow at that point with relation to the height of Coulange lake. Meterings are also being made to define the relation between the flow in the Calumet and Rocher Fondu channel, and the party also measured Coulange river, Black river, and the Mattawa summit waters.

From time to time, measurements are taken of the Gatineau, Rideau, and the main Ottawa at Besserer's Grove, the work being done by the party that rates the metering instruments at Dow lake.

Another party is stationed at Carrillon, measuring the main river also the Lièvre, Rouge, and North rivers. The measurements at this point, added to the measurements of the St. Lawrence at Iroquois, are for use in connection with Montreal harbour levels.

In connection with maintaining Quinze reservoir, the flow contour elevation 864, has been surveyed through Beauneville township, and levels required for the road work in Latulippe township have been given by the same party.

LOCK AND DAM.

Lock and Dam.

Work during the past year consisted of operating the lock, placing the repairing booms in spring and removing them in the fall, new safety boom was placed in the

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fall, the fence around the property was rebuilt also last fall, renewing sheathing on apron of dam, rebuilding the two centre piers of the dam from low-water line, repairing timber slide, replacing roller and frame to lift stop-logs in slide by a pair of winches. Minor repairs to the Lockmaster's quarters.

Expenditure during the fiscal year, \$5,906.95.

RIVER ST. CHARLES.

Locks and Dam.

Work performed during this fiscal year is as stated below.

The completion of the fabrication of steel for the floating caisson for lower lock entrance.

Excavation for the mattress on the north shore of the river above the dam. The material was removed by a suction dredge and pumped to the government property on the Limoilou side west of the Canadian Northern railway, to raise the surface to make it available for building or commercial purposes in the future.

Permanent steel girders to carry the Canadian Northern and Quebec Railway tracks have been erected over the sluiceway openings in the dam to replace cribwork which has to be removed for the construction of the sluiceway and piers.

Total expenditure for year, \$101,174.56.

YAMASKA.

Yamaska, a thriving village situated on both sides of the Yamaska river, about eight miles from its mouth, where it empties in the St. Lawrence. Two miles below the village is situated the lock and dam built by the Department of Public Works in order to facilitate navigation on this river.

Work of repair done by day labour, commenced on October 11, and was completed October 31, 1917, and consisted in reconstructing the four upper tiers of the dam at the little channel and making a concrete flooring on top of the dam which is used as a roadway.

In the execution of the above works 7,207 feet b.m. of timber, 60 bags of cement, and some iron were used.

During the fiscal year 1917-18, the expenditure was \$671.15.

MANITOBA.

St. Andrews Lock and Dam.

The lock and dam was in operation from May 8 to November 29.

In the month of August, it was found necessary to raise the curtains of the dam to remove brushwood, etc., to facilitate the better operation of the same. Owing to the small discharge of the Red river, canvas was placed at different points on the dam to prevent undue leakage.

During the navigation season, a gross tonnage of 25,635 passed through the lock, and 530 small craft. Passengers to the number of 5,897 were carried.

Excursion boats made daily trips on the water regulated by the dam.

SLIDES AND BOOMS.

OTTAWA RIVER WORKS—ORDINARY REPAIRS.

North Chaudière Station.—A new guide boom was provided for the entrance to the upper slide, the bulkhead of the slide was rebuilt, and the winches for raising the

stop-logs were mounted upon a new frame. A temporary apron of timber was placed at the outlet of the lower slide to prevent the logs from being damaged by striking the rocky bed of the river at stages of low water.

South Chaudière Station.—The expenditure at this station was for materials for repairs to the storehouses and guide booms at entrance to slide; the work having been performed by the slide master and his men.

REPAIRS OF OTTAWA RIVER.

Gatineau River.—The repairs on this river consisted in placing extra screw bolts to strengthen the main boom and in repairing the boats and station-house.

Madawaska River.—At the mouth of the Madawaska, the top of one of the piers in connection with the retaining boom was rebuilt. This pier is 14 feet by 17 feet at the water's edge, and 11 feet by 13 feet at top, the height of the new work being 5½ feet. Two fenders of 10-inch square timber were placed on the face of the pier.

At Arnprior the guide booms were repaired, and two of the piers at head of the slide were rebuilt from low water level, a height of 6 feet. One of the piers is 18 feet by 22 feet and the other is 15 feet by 16 feet. A cedar post was placed in each pier, and additional stonefilling was provided to fill the piers.

At the retaining boom at head of Calabogie lake, five piers were rebuilt from the water surface. No. 1, is 22 feet square; No. 2, 24 feet square; No. 3, 21 feet square; and Nos. 4 and 5, each 20 feet square. All the piers are battered so that the size of each is 7 feet less at top than at water's edge, the height of the new work on each pier being 8 feet.

At High Falls, the tops of four piers supporting the guide boom at head of slide were rebuilt. Nos. 1 and 3 are 20 feet square at the water line and 18 feet square at top; No. 2 is 26 feet in front, 12½ feet in rear, and 18½ feet on sides; No. 5 is 33 feet in front at base and 29 feet at top, 14 feet in rear at base and top, the length of the sides being 24 feet. The height of the new work on piers Nos. 1, 3, and 5 is 9 feet, and on No. 2 it is 10½ feet.

A new pier was also built at the lower bulkhead. It is 21½ feet long and 5½ feet wide, the height at lower end is 7½ feet and at the upper end it is 2 feet. The sheeting on the pier dam between the two bulk-heads was renewed in places and some repairs were made to the main controlling dam.

At Ragged Chute extra stonefilling was placed in the pier dam across the blind channel at head of chute.

At Chain Rapids the tops of two piers had to be rebuilt. No. 4 is 18 feet by 16 feet at base and 16 feet by 14 feet at top; No. 5 is 18 feet square at base and 14 feet square at top, the height in each case being 8 feet.

On the morning of 1st May, 1917, two breaks occurred in the slide at High Falls, one on 23rd April and the other on 5th May. On the former occasion, the longitudinal stringers broke while logs were running in the slide, and the superstructure gave way for a length of 48 feet; the other break was caused by a rock slide from the mountain, which carried out a section 50 feet in length. The damage was repaired with all possible haste, so little delay was occasioned, in either case, to those using the slide.

Black River.—A section of the High Falls slide, 137 feet in length, immediately below the bulk-head, was repaired, as the foundation had settled, causing the bottom of the slide to sag as much as 19 inches below grade at the centre of the bow. The superstructure was raised to position and general structural work done. The sheeting in sides and bottom of slide and decayed posts and braces were all renewed.

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Peterawa River.—At the mouth of this river, a pier was built to form a gap to allow small craft to pass through the retaining boom. The pier is 16 feet square and 9 feet high. Another pier, the first below the wharf, was patched, as some of the top timbers were decayed.

At Second Chute, the expenditure was for pine plank used in repairing the slide.

At Crooked Chute, the camp house was repaired, and an addition was built. Sections of the floor of slide at the outlet and just below the bulk-head were renewed with 6 inch material. Posts were replaced in the slide; a course of timber was placed on the tops of the foot and entrance piers and five stop-logs were made for the bulk-head. The main controlling dam was repaired, it having been found necessary to renew several of the cross-ties and longitudinal timbers.

At Thompson's rapids, the outlay was for timber for repairs to the retaining dam.

At head of Lake Traverse, the tops of two piers of the boom were rebuilt. They are each 16 feet square, battered to 12 feet square at top and 8 feet in height. Each is supplied with a snubbing post.

At Poplar chute, a glance pier, 48 feet long, 8 feet wide and 5 feet high, had to be restored. The pier is close-work in front and open in rear.

At McDonald's chute, the main governing dam, 110 feet in length, to the south of slide entrance, was rebuilt. This is a flat dam, 9 feet high at rear with an average face of 16 feet. Two piers at the guide boom required attention; the one on south side at upper end of boom, 13 feet by 16 feet and 12 feet high, was altogether renewed, and the other, also on the south side and immediately above the slide, had its top timbers repaired. Four lengths of guide boom were taken out of the water, damaged ends were sawn off and new holes were bored well back in the solid timber for the connecting chains.

The amount chargeable to Cedar lake station was for timber for repairs to the retaining dam.

GENERALLY.

Gatineau River.—Eleven tons of one-inch diameter B. B. iron chain were provided and placed on the government boom near the mouth of this river, to guard against excessive strain, when the water in the river is at spring flood.

Coulonge River.—At five different places, portions of the High Falls slide were rebuilt from the foundations. The old timbers of the latter were removed and laid in the new to receive the bents which vary in height from 10 to 16 feet; twenty-eight new bents were placed and five old ones were repaired and strengthened with extra bracing; 126 posts with the usual braces, 83 cross sills and sheathing in sides and bottom at these five places were all renewed. There were two lengths in the second section, 72 feet and 108 feet; two in the third section, 144 feet and 116 feet; and one in the fourth section, 75 feet. At other places in the slide, it was found necessary to patch the sheathing in sides and bottom, also to replace some of the posts. Three stay chains, 28 feet, 25 feet, and 21 feet in length were set to steady the superstructure. One end of each chain is connected to an eye bolt which passes through the stringers of slide, while the other end is made fast to an anchor bolt sunk in the solid rock on the side of the mountain. The posts supporting the bulk-head of slide were repaired and eleven bars of flat iron were secured to the sides of the head piers, to guard against abraision from passing logs. One of the guide booms, 125 feet long, was water-logged, so two lengths of timber extending the whole length of the boom were placed on top to give greater buoyancy, the upper portion of the boom being planked with 2-inch pine.

ST. MAURICE RIVER.

All movable and immovable government properties used for the purpose of transmission of timber, on this river, is leased to the St. Maurice River Boom and Driving Co., which lease took effect on February 1, last.

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Under supervision, the company maintained the whole work in a very satisfactory manner and made several important improvements rendered necessary on account of the constant increasing lumber business on the river.

BRIDGES AND ROADS.

OTTAWA.

BRIDGES AT OTTAWA, AND ROADWAY AND BRIDGE APPROACHES *to* OTTAWA AND HULL.

Laurier Bridge.—The hand-rail on the top of the guard fence, on northern side, was renewed for the whole length of the bridge, the one on the other side having been treated in a similar manner previously. The old rail was of rolled steel and was so badly corroded that holes were eaten completely through the material. All the guard fence received a coat of paint. Considerable repairs were made to the sandstone pavement on both approaches to the bridge; fully one-third of which was taken up and re-laid to grade on the western approach, while at the other end the worst places were attended to. All the pavement re-laid was grouted with cement.

Chaudière Slide Bridge.—The roadway of this bridge was cleaned, the guard fence on the western side was painted and the pavement was kept in repair. The cast-iron grating and drainage chambers were kept free of debris throughout the season.

Union Bridge.—The roadway of the Union bridge was kept clean, the planking was patched, and the guard fence was repaired.

Roadway and Bridge Approaches between Ottawa and Hull.—The pavement on this thoroughfare was cleaned frequently, and repaired. The wooden guard fence and pipe rail on the eastern side, from Union bridge to Hull, received two coats of paint while the gratings and weeper holes received proper attention throughout the year.

During the winter, surplus ice and snow were removed from the roadways of the bridges and sidewalks, and the latter, when slippery, received a coating of sand to aid pedestrians who had occasion to use them.

In spring, the usual drains were cut to carry off the surplus water.

ONTARIO AND QUEBEC.

Bryson.—The work of repair to this bridge was renewing the roadway at both ends of the two main spans, with 3-inch pine plank. The portion repaired at the Calumet island end was 71 feet long; and that at the Bryson village end, 135 feet, the width of the planking in both cases being 19½ feet. A wheel guard of 6-inch square cedar was laid at both sides and in the centre of the portions renewed. About 25 cubic yards of gravel were deposited at the Calumet island end to bring the roadbed even with the planking on the bridge.

Chapeau.—The work at this bridge consisted in filling in behind the concrete retaining walls, on the northern approach, with stone and gravel, about 450 cubic yards having been used in doing so. The fill on the upper side is 140 feet long, of an average depth of 2 feet and extends up the bank about 16 feet of an average. The fill on the lower side is 104 feet in length, 4 feet average depth and extends up the bank an average of 20 feet.

Upper and Lower Bridges.—The pipe rail on the bridge across the main channel of the Ottawa river, having been disconnected through contraction, had to be joined again, and at another place on the same bridge, part of the piping was missing and was repaired by a new piece with a coupling. The wooden guard fences on both approaches to the two bridges were repaired where the boards were broken or defective; 24 pieces of 1- by 5-inch pine having been used for this purpose.

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On the Ontario approach, a culvert collapsed and this necessitated the placing of two pieces of cedar, each 16 feet long. The roadway over the culvert was graded with gravel and stone.

Four sign boards for the regulation of traffic were placed at both ends of the two bridges.

MATAPEDIA INTERPROVINCIAL BRIDGE.

The Matapedia Interprovincial bridge links the two shores of the Restigouche river, thus uniting the provinces of Quebec and New Brunswick.

The work done during the last fiscal year consisted in the repairing of planks in a temporary manner, stopping the most dangerous holes in order to render the bridge safe for winter. More extensive and necessary work could not be done on account of weather conditions.

PITTS BROOK.

Pitts Brook is located in the Matapedia military road, about two miles from Ste. Florence de Beaurivage, in the county of Bonaventure. It is situated in that part of the road where there is no municipality to take care of its maintenance.

The work done during the fiscal year 1917-18, consisted in the reconstruction of a bridge, 48 feet in length by 16 feet in width, placed upon two cedar abutments. The flooring is in 3-inch deals.

HARRICANA RIVER BRIDGE.

Traffic Bridge at Amos, Que.

The Government of the province of Quebec was authorized by Order in Council of the 4th October, 1917, to proceed with the construction of a fixed wooden bridge across the Harricana river, at the village of Amos, Que.

This bridge consists of two spans, continuous over the centre pier, of a total length of 304 feet, with approaches from the two shore piers. The latticed trusses are roofed over. Provision has been made for a clearance of $14\frac{1}{2}$ feet above high-water level, and for lighting the channel span.

The bridge was opened to traffic in the late autumn.

MUSKRAT RIVER (MEATH STATION).

Canadian Pacific Railway Bridge.

The Canadian Pacific Railway Company proceeded with the construction of their new bridge across the Muskrat river, in order to do away with the existing 600-foot trestle built skew to the stream, over twenty years ago, and which intersects the highway bridge (O. C. June 15, 1912).

Piles were driven to a great depth for the footing of concrete abutments; during the course of placing the ballast fills to said abutments, the work settled down and virtually disappeared while, at the same time, the river bottom on either side was raised several feet. As the new line for this diversion is built through marshy soil, the company found it necessary to purchase additional land and cut a new channel for the river, to which the steel span (plate girder 87 feet 2 inches long) has been removed. This new channel is located some 900 feet from the originally proposed location of bridge, and is to be maintained by the company.

The new bridge and diversion track were completed in July, and traffic was diverted thereto on 15th August, 1917.

GRAND RIVER BRIDGE.

Grand River bridge is a highway bridge over the Grand river at York, situated 5 miles from Caledonia. Seneca flag station is the nearest freight point.

The spring flow of ice injured the upper posts in each bent of the timber trestle at the west end of the bridge; work of repair consisted of renewing broken planks in the decking; of renewing 800 feet b.m. and replacing eight 10 by 10 posts in the trestle, and these posts were braced to the other posts in the bents with 4 by 8 braces.

The work was finished March 30. Expenditure, \$345.52.

ALBERTA.

CALGARY, ON.

The city carried out repairs to the roadway, which included putting in steel flange rails along the roadway and street car tracks and in making the necessary renewals to the wood block pavement, as well as, some other minor repairs.

The cost of this work to the department was \$536.16, it being one-third of the total cost, as under the agreement with regard to the upkeep of this bridge; in the months of August and September last, this department put a small force of men at work clearing off the debris from the lower chords which had accumulated there from the roadway, and the sum of \$30 was expended, and owing to some extra work which was necessary in repairing the flash boards below the roadway of the bridge there was expended the sum of \$31.50.

SPRAY RIVER.

Repairs consisted in rock filling and riprap; the rock was obtained from government quarry, and lumber from the Forestry department.

Work was carried out by day labour at a cost of \$436.72.

SESSIONAL PAPER No. 19

GOVERNMENT TELEGRAPH SERVICE

By D. H. KEELEY, GENERAL SUPERINTENDENT.

Location of Lines.	Points connected.	Year.	LENGTH OF LINES			Number of Offices.	Messages Sent.
			Land Lines.	Cables.	Total.		
			Miles Wire.	Kts.			
Newfoundland	Port au Basque—Cape Ray	1883	14		14	2	
Nova Scotia	North Sydney—Meat Cove (with loops)..	1880-02	168½				
"	Across Bras d'Or Channel	1880					
"	" St. Anns Harbour (Englishtown).	1887			170	25	
"	" Ingonish Harbour	1887					
"	" French River						
"	Big Bras d'Or—Kempt Head	1904	20		20	3	
"	Meat Cove—St. Pauls Island	1890		20	23	1	
"	On St. Pauls Island	1890	3				
"	Bay St. Lawrence to Money Point	1907	8		8	4	
"	Mabou—Meat Cove	1887-00	116½		116½	12	
"	Barrington—Cape Sable	1883	16				
"	Across Bear Point Channel	1883		1½	17½	Leas-	
"	" Lt. House Channel	1883				ed.	
"	Mabou—Port Hawkesbury	1903	41½		73½	9	
"	Port Hawkesbury—St. Peters	1903	32				
"	St. Peters—Main a-Dieu	1904	83½				
"	Main a-Dieu—Scatari	1902-09	1	6½	133½	15	
"	On Scatari Island	1904	7½				
"	Gabarus—North Sydney	1904	38½				
"	Little Bras d'Or—Kempt Head	1905	34½		34½	6	
"	North Sydney—Eskasoni	1905	31		31	10	
"	Eskasoni—Grand Narrows	1908	22		22		
"	Grand Narrows—Shenacadie—Beaver Cove	1910	15½		15½	3	
"	Leitches Creek—Steeles Crossing (loop)..	1910	28		28	1	
"	Baddeck—Little Narrows	1910	19½		19½	1	
"	North Sydney—Little Bras d'Or (second wire)	1906	6		6		22,095
"	Grand River—Enon	1907	19½		19½	2	
"	Enon—Gabarus	1909	29		29	3	
"	Strathlorne—Wycocomagh	1909	33½		33½	7	
"	S. W. Margaree—Wycocomagh—Little Narrows	1912	38½		38½	8	
"	Loch Ban—Scottsville	1912	7		7		
"	Wycocomagh—Orangedale	1912	8		8	5	
"	North Sydney—Sydney Mines—Florence	1912	7		7		
"	Little Narrows—Washabuck Centre	1912	12		12	4	
"	Loop, Eskasoni—McAdams Lake	1912	5		5	1	
"	Baddeck, Nyanza—Big Intervale	1913	39		39	6	
"	Brook Village—Glendale	1914	32		32	6	
"	Washabuck Centre—Grass Pond	1916	7½		7½	1	
<i>Port Hood, Island Branch :</i>							
(Length of construction in loop.)							
"	On mainland at Port Hood	1907					
"	Port Hood—Smiths Island	1907		2			
"	On Smiths or Inner Island	1907	4		13½	4	
"	Smiths Island to Henry Island	1907		3			
"	On Henry or Outer Island	1907	4				
New Brunswick	Chatham—Esquimaux—Point Stqn.	1885	0		5	25	5,514
Carried forward			1010	31	1,041½	171	27,095

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GOVERNMENT TELEGRAPH SERVICE—Continued.

Location of Lines.	Points connected.	Year.	LENGTH OF LINES.			Number of Offices.	Messages Sent.
			Land Lines.	Cables.	Total.		
			Miles Wire.	Kt's.			
	Brought forward		1,845	209 $\frac{3}{4}$	2,054 $\frac{3}{4}$	246	37,751
	<i>Chicoutimi Dist. Con.</i>						
Quebec	St. Charles—La Pipe	1907	30		30	4	
"	La Pipe—Peribonka	1908	17		17	2	
"	Bay St. Paul—St. Placide	1908	8 $\frac{1}{2}$		8 $\frac{1}{2}$	1	
"	Taché—St. Louis de Nazaire Loop	1912	5		5	1	
	<i>North Shore Line</i>						
"	Murray Bay—Chateau Bay (Tadoussac).	1881-01	947 $\frac{1}{4}$				44,860
"	Across Saguenay River at Tadoussac	1883		1 $\frac{1}{4}$	949 $\frac{1}{2}$	74	
"	" " " "	1909		1			
"	Bersimis—Godbout	1904-05	114		114		
"	St. Simeon to Cap Salmon Lt. (loop wire).	1909	4		4	1	
"	Harrington—Harrington Island	1909	1 $\frac{1}{4}$	3 $\frac{1}{4}$	4 $\frac{1}{2}$	1	
"	Point Lebel Loop	1915	5		5	1	
	<i>Quarantine System</i>						
"	Quebec—L'Ange Gardien	1885	13				
"	L'Ange Gardien—Orleans Island	1885		2 $\frac{1}{4}$			
"	" 3 lengths	1906-09		2 $\frac{1}{4}$			
"	On Orleans Island	1885	29 $\frac{1}{4}$				
"	Orleans Island—Isle Reaux	1889		2			
"	" (2nd cable)	1910		2 $\frac{1}{4}$			
"	On Isle Reaux	1889	2 $\frac{1}{2}$		80 $\frac{1}{4}$	11	759
"	Isle Reaux—Grosse Isle	1889		2			
"	" (2nd cable)	1910		2			
"	On Grosse Isle (all told)	1885-94	3 $\frac{1}{4}$				
"	St. Jean—Ste. Famille (loop)	1904	11				
"	St. François—St. François Nord (looped wire)		10				
"	Crane Island to Montmagny	1905-09		5	5		
"	On Crane Island	1905	3		3	5	
"	Crane Island to Grosse Isle	1907		5	5		8,915
"	Crane Island—Goose Island	1912	10		10	2	
"	Orleans Island Telephone System	1910	68		68	7	
"	Kippewa Dam—Ville Marie	1910	33 $\frac{1}{2}$		78 $\frac{1}{2}$	9	1,443
"	Ville Marie—North Timiskaming	1911	45				
"	St. Isidore Branch	1912	3 $\frac{1}{4}$		3 $\frac{1}{4}$	1	
"	Charlesbourg—Lake Beauport—Stoneham	1913	52 $\frac{1}{4}$		52 $\frac{1}{4}$	8	
"	Lake St. Charles—St. Gerard	1914	34 $\frac{3}{4}$		34 $\frac{3}{4}$	4	6,231
"	Beauport—Laval	1909	15		15	7	
	<i>Pelee Island System</i>						
Ontario	Leamington—Point Pelee	1889	12				
"	Leamington Dock—Pelee Island	1901		17 $\frac{1}{4}$	45 $\frac{3}{4}$	18	859
"	On Pelee Island	1889-00	16 $\frac{1}{2}$				
	Carried forward		3,339 $\frac{1}{2}$	253 $\frac{3}{4}$	3,593 $\frac{1}{4}$	400	100,809

GOVERNMENT TELEGRAPH SERVICE.—Continued

Location of Lines.	Points connected.	Year.	Length of Lines.			Number of Officers.	Messages Sent.
			Land Lines.	Cables.	Total.		
			Miles Wire	Kts.			
	Brought forward.		3,339½	253½	3,593½	400	100,809
	<i>North-west Lines—</i>						
Saskatchewan.	Qu'Appelle—Onion Lake.....	1883	402		402	9	29,721
	Moose Jaw—Wood Mountain.....	1885	107		107	4	
	Wood Mountain—Willow Bunch.....	1904	39		39	2	
	Gravelbourg Loop.....	1910	38		38	1	
	Levelling Loop.....	1912	28		28	1	
	Saskatoon Loop.....	1892	28		28	1	
	Duck Lake—Batoche.....	1902-10	9		9	2	
	Duck Lake—Indian Agency.....	1902	3½		3½	3	
	Lloydminster Loop.....	1904-09	58		58	1	
	Lipton Loop.....	1906	2		2	1	
	Fort Qu'Appelle—File Hills Agency.....	1907	28		28	4	
	Kamsack—Indian Agency.....	1907	6½		6½	2	
	Kamsack—Indian Agency—Pelly.....	1910	17½		17½	4	
	Bathford—Isle-a-La-Crosse.....	1912	275		275	6	
	Meota Loop.....	1912	20		20	1	
Alberta.	Sintaluta—Assiniboia Reserve.....	1913	8		8	1	39,304
	Onion Lake—Edmonton.....	1883	205		205	8	
	St. Paul—Durlingville.....	1912	48		48	3	
	Edmonton—Athabaska.....	1904	98		98	2	
	Athabaska—Mirror Landing.....	1909	70		70	1	
	Mirror Landing—Peace River.....	1910	199		199	4	
	Peace River—Dunvegan.....	1911	74		74	2	
	Dunvegan—Lake Saskatchewan.....	1912	76		76	2	
	Grand Prairie City Loop.....	1912	16		16	1	
	Lake Saskatchewan—Fort St. John.....	1914-15	145		145	3	
	Fort St. John—Hudson Hope.....	1915	62		62	2	
	Peace River—Shaftbury.....	1911	15		15	4	
	Athabaska—Fort McMurray.....	1914-15	245		245	4	
	Athabaska—Lac la Biche (Plamondon).....	1914	58		58	1	
	Plamondon—Roman Catholic Mission.....	1915	12		12	1	
	Edmonton—Indian Agency—Stony Plain.....	1904	32		32	5	
	Edmonton—St. Albert.....	1887	9		9	1	
	St. Albert—Qu'Appelle—Alexandre.....	1902	25		25	3	
	Andrew Loop.....	1904	10		10	1	
British Columbia Lines—	Laurier Loop.....	1910	7		7	1	83,012
	Saddle Lake—Industrial School.....	1900	6½		6½	1	
	Gravelbourg—High Prairie.....	1912	15		25	12	
	High Prairie—Prairie River.....	1913-14	13½		13½	2	
	<i>British Columbia Lines—</i>						
	Kamloops—Vernon Protection.....	1899-11	467½	1½	469	54	
	Kamloops—Mount Oke.....	1908-15-12	86		86	19	
	Kamloops—Sicamous.....	1913	28		28	5	
	Kamloops—Bamhart Vale—Rams Hill.....	1911	14		14	4	
	Kamloops—Notch Hill—Revelstoke.....	1914-15	215½	1½	217	31	
	Fortman—Midway.....	1914	93		93	12	
	Whitemans Creek—Kelowna.....	1914	29	1	30	7	
	Neah—Trail.....	1914	61		61	15	
	Proctor—Sirdar—Creston.....	1914-16	87½	2½	90	16	
	Nelson—Elgin.....	1912	59	1	60	15	
	Golden—Windermere.....	1904	92		92	25	
	Holbrook—Upper Lillooet Creek.....	1916	37		37	11	
	Deer Park—Renata.....	1916	74½		75	10	
	Merrill—Moose Lake—Creston.....	1916	37		37	7	
	Kamloops—Granby Lake.....	1916	14		14	3	
	London—Vernon.....	1916	26		26	2	
	Carried forward		7,128½	262½	7,490½	741	257,816

GOVERNMENT TELEGRAPH SERVICE—Concluded.

Location of Lines.	Points connected.	Year.	LENGTH OF LINES.			Number of Offices	Messages Sent.
			Land Lines.	Cables.	Total.		
			Miles Wire.	Kt's.			
	Brought forward.....		7,228½	262½	7,490½	741	257,846
	<i>British Columbia Lines—Concluded.</i>						
Vancouver Island.....	Victoria—Banfield.....	1891	169	.....	169	15	
"	Alberni—Banfield.....	1899	53	.....	53	2	
"	Alberni—Clayoquot.....	1902	95½	2½	97½	6	
"	Clayoquot—Nootka.....	1913	62½	12½	74½	8	
"	Clayoquot Branch.....	1913	1	½	1½	2	
"	Toquart—Sechart.....	1907	7½	2	9½	2	
"	Tofino—Mosquito Harbour, Bear River)	1911-14	55	3¾	58¾	4	
"	Clayoquot Sound—Leonard Is. Light..)						
"	Nanaimo—Comox—Campbell River....	1893-08	118	.....	118	9	
"	Parksville—Alberni Branch.....	1895	30	.....	30	1	
"	Comox—Cape Lazo Branch.....	1910	6	.....	6	1	
"	Union Bay—Denman and Hornby Islands	1907	21	2	23	5	
"	Nanaimo—Gabriola Island.....	1909	16	¾	16¾	5	112,906
"	Campbell River—Powell River.....	1910	65½	13½	79½	11	
"	Powell River—Vancouver.....	1913	108	12	120	21	
"	Campbell River—Hardy Bay.....	1914	203½	4½	207½	18	
"	Vancouver—Squamish.....	1914	44½	1½	46	6	
"	Salt Spring Island Line.....	1902-14	88	7½	95½	23	
"	Sidney—Ganges Line.....	1910	21	2½	23½	5	
"	Chemainus—Kuper—Thetis Islands....	1912	3½	4	7½	5	
"	Saanichton—James Island.....	1912	3½	1	4½	2	
"	Sydney and Sydney Island.....	1910	3	3	6	2	
"	Bamberton Works, Keatings Branch....	1914	.....	1	1	1	
Yukon.....	Ashcroft—Dawson and Boundary.....	1899-12	1,777	.....	1,777	78	
"	Ashcroft—Quesnelle (local wire).....	1878-87	215	.....	215	.....
"	Ashcroft—Lillooet Branch.....	1896	67	.....	67	12	
"	Lillooet—Pioneer Branch.....	1912	66	.....	66	15	
"	Lillooet—Lytton Branch.....	1913	49½	.....	49½	12	
"	Ashcroft—Savonas Branch.....	1914	40	.....	40	5	
"	150 Mile House—Quesnelle Forks.....	1902	89	.....	89	5	
"	150 Mile House—Bella Coola Branch....	1912	329	.....	329	28	
"	Quesnelle—Barkerville Branch.....	1887	61	.....	61	5	78,045
"	Hazelton—Prince Rupert Branch....	1901-07	218	.....	218	22	
"	Terrace—Stewart Branch.....	1910-11	174	.....	174	8	
"	Queen Charlotte Island Line.....	1913-14	123	.....	123	13	
"	Hootalinqua—Livingstone Creek, Y. T. Branch.....	1907	70	.....	70	2	
"	Ashcroft—Highland Valley.....	1916	30	.....	30	5	
	Total.....		11,711½	336	12,047½	1,106	448,797

9 GEORGE V, A. 1919

TELEGRAPH SYSTEMS OF THE DOMINION.

As a matter of general interest, pursuant to the statement submitted last year, the latest figures to hand showing the extent of telegraph lines in operation in the Dominion are as given hereunder.

Canada.	LENGTH OF LINES IN MILES.				LENGTH OF CONDUCTORS IN MILES.				No. of Offices
	Aerial.	Under-ground	Sub-marine.	Total.	Aerial.	Under-ground	Sub-marine.	Total.	
1917-1918									
Great North Western Telegraph Co.	10,064	7	13	10,084	31,357	192	78	31,627	
Canadian Pacific Telegraph	14,617	23	25	14,735	106,143	820	227	107,190	1,519
Government Telegraph Service	11,711		336	12,047	11,711		336	12,047	1,106
Grand Trunk Pacific Telegraph	5,279	1	1	5,279	19,525	18 25	2 19	19,545	279

REVENUE AND EXPENDITURE.

The revenue and expenditure for each of the Government lines in the several districts hereinbefore mentioned, are given in the following table:—

1917-1918.	Expenditure.	Revenue.
	\$ cts	\$ cts.
Lower St. Lawrence and Maritime Provinces—		
Antigonish lines	9,267 02	1,521 90
Bay of Fundy	3,107 45	1,188 42
Cape Breton	37,252 19	5,855 76
Cape Ray (subsidy)	250 00	
Esquimaux	2,168 78	869 96
Father Point (subsidy)	750 00	
Healy Coast (subsidy)	200 00	
Magdalen Islands	5,148 60	2,439 67
North Shore, east of Bersimis	28,674 68	8,827 41
North Shore, west of Bersimis	21,193 03	2,386 30
Orleans telephone	1,840 25	569 45
Quebec telephone system	4,822 51	118 05
Quebec County lines	5,244 76	1,279 11
Prince Edward Island and Mainland (subsidy)	13,893 32	
Cable ship <i>Tyrian</i> Maintenance	57,236 75	
Generally—		
Gulf and Maritime Provinces	2,741 16	
Tanaskumung District		
Telephone line	3,288 92	562 05
Ontario—		
Pelée Island telephone	1,574 42	169 85
North West Coast		
Saskatchewan	50,125 38	8,141 55
Alberta	78,037 65	18,761 95
British Columbia—		
Metropolitan	78,488 33	30,257 37
Vancouver Island	98,761 90	37,043 14
Yukon—		
Anticosti Division	219,068 55	85,466 72
Telegraph lines generally	703 12	
Total	732,158 47	205,558 75

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DEPARTMENTAL TELEPHONE SERVICE.

Up to date of this report (April 1, 1918) the telephone connections with the central office of the Bell Telephone Company at Ottawa, listed as chargeable to the special appropriation, numbered 1,270, the annual charge for which amounts to \$56,252.40. The connections are distributed amongst the several departments, as hereunder.

Department.	No. of Telephones.		Total.	Cost per Annum.
	Offices.	Residences.		
				\$ cts.
Agriculture.....	41	12	53	2,755 00
Auditor General.....	14	2	16	771 00
Canada Food Board P. B. X.....	32		32	1,554 00
Census.....	1		1	80 00
Civil Service Commission.....	5	4	9	427 00
Clerk of Crown in Chancery.....	1	1	2	85 00
Conservation Commission.....	5	1	6	375 00
Customs.....	25	4	29	1,217 00
Dominion Archives.....	2	2	4	195 00
Dominion Police.....	16	5	21	850 00
Exchequer Court.....	2	1	3	145 00
External Affairs.....	12	3	15	698 00
Finance.....	3	6	9	370 00
" P.B.X.....	31		31	1,650 00
Fuel Controller.....	2		2	95 00
House of Commons.....	16	1	17	685 00
Immigration and Colon'n.....	10	3	13	570 00
Indian Affairs.....	13	2	15	591 00
Inland Revenue.....	15	4	19	793 00
Interior.....	116	10	126	5,584 00
Justice.....	39	15	54	2,249 50
Labour.....	5	4	9	445 00
Library of Parliament.....	3	2	5	185 00
Marine.....	20	7	27	1,160 00
Militia and Defence.....	18	15	33	1,622 00
" " P. B. X.....	234		234	9,568 50
Military Hospital Commission.....		1	1	40 00
Military Ser. Council P. B. X.....	12		12	1 107 40
Mines Department.....	22	1	23	1 017 00
" " P. B. X.....	36		36	1,349 00
Mounted Police.....	4	3	7	280 00
Naval Service.....	25	7	32	1,366 00
Northwest Territories.....		1	1	35 00
Patriotic Fund Committee.....	1		1	80 00
Post Office.....	42	9	51	2,092 00
Printing and Stationery.....	20	11	31	1,283 00
" " P.B.X.....	49		49	1,143 00
Privy Council.....	12	4	16	702 00
Public Works.....	68	24	92	4,106 00
Railways and Canals.....	25	13	38	1,717 00
Rideau Hall.....	5	6	11	460 00
" Private Line.....				123 00
" P. B. X.....	18		18	1,146 00
Secretary of State.....	14	5	19	856 00
Senate.....	15	4	19	812 00
Supreme Court.....	2		2	80 00
Trade and Commerce.....	13	4	17	750 00
War Purchasing Commission, Private Branch Exchange..	9		9	988 00
	1,073	197	1,270	56,252 40

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CAPE BRETON LINES.

The various lines have worked satisfactorily and with little interruption throughout the year. There has been no additional mileage and no changes in staff. Amounts for repoling and general repairs were voted as follows:

North River Bridge loop	}	\$1,400
Marion Bridge-Sydney		
Louisburg-Main-à-Dieu		
Big Bras d'Or-Upper Kempt Head	}	\$1,600
Leitches Creek-Sydney		
McCormicks-Brook Village		
and Whycocomagh	}	\$1,600
Gilliesville-South Side		
East Bay		
Eskasoni-Grand Narrows	}	\$3,400
Grand Narrows-Shenacadie		
Big Bras d'Or-Englishtown		
Louisburg-Gabarus		
Gabarus-Marion Bridge		
Gabarus-Enon		

The work was carried on under the supervision of the general repairers of the respective sections. The revenue shows an increase of \$1,218 over that of last year.

BAY OF FUNDY.

All land lines have been free from interruptions during the year, except a section of the lines at Grand Harbour consisting of six poles which went down during a gale on October 30-31, but the poles were reset without delay, and there has been no further interruptions on this Flagg's Cove-Seal Cove telegraph line throughout the year.

On August 11th, cables number two and one, Whale Cove-Meadow Brook, and Longs Eddy-Herring Cove, developed leaks. The *Tyrian* arrived September 8th and found a bad leak at Dunns Beach, Campobello, on cable No. 1 in a splice underneath the cable hut. Mr. McDonald also took out a bad leak in cable No. 2 at Whale Cove at high water mark where the armour had been crushed, the core was exposed through a split in the rubber insulation, this cable would work with the telephones, but only for a few minutes using Morse, the reason I believe, was on account of the electrolytic action caused by the fishermen throwing pickle on the beach where the cable runs by a fish-house door, when the telegraph current was put on caused the copper to corrode and throw a short.

All lines worked well up to December 15th, when interruptions occurred on Three Sister Island-Gannet Rock, and Duck Island-Nantucket cables both being broken, the former about three quarter mile from Gannet, and the latter mid-way between the islands. The *Tyrian* completed repairs on Gannet Rock 1st March and Duck Island on 27 March. White Head-Cheneys Island cable reported interrupted on the 21st March, was also repaired at this time.

Cable No. 1 Longs Eddy-Herring Cove was reported heavily grounded on January 21st was restored to working order by Mr. McDonald who found a ground in the cable hut at Herring Cove.

The *Tyrian* left here on March 27th and all cable lines are working good.

The Seal Cove-South Head, and Big Wood Island land lines will need some attention in the way of insulators; and one or two poles which are badly decayed will need to be replaced in the course of the summer.

All lines and cables in this district are working well at the present time.

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MAGDALEN ISLANDS.

The mileage is the same as last year; no new offices have been added except a few private connections:—Dominique Arseneau (agent for the Gorden Pew fisheries) connects at Father Turbide. Mr. Arseneau pays when he uses the line; another box was put at Messrs. Wm. Leslie and Co. who bought Mr. Ballantyne's telephone set. Messrs. Leslie has the connection at my office and Mr. Ballantyne's line formerly connected here is presently unoccupied but demand for the use of this line has been granted Mr. F. W. Leslie who will soon have a connection also to my office. Another private attachment was also made at Mr. Brasset sub-agent for La Banque Nationale.

Meat Cove cable was interrupted October 11, but was repaired by the S.S. *Tyrian* October 27. Again December 7, the Meat Cove cable was interrupted and has remained so. The wireless telegraph is handling the traffic but useless to say that a cable to the mainland principally to Prince Edward Island would be more advantageous.

The Brion island cable has been working well all the year round. It is indeed a great thing for the fishermen to have this telephone connection in good condition, this island being one of our greatest fishing ground.

The Entry island line has been in great working condition except for a month when a gale of wind with thunder and lightning caused trouble which has been impossible to locate yet. The general repairer and linemen are doing everything to clear up the situation and it is expected good communications will soon be established.

Notwithstanding war conditions the traffic is increasing, we have double the business we had when war started that is to say the revenue is twice larger.

There is now a large demand for connections to the mainline, these additional connections must of course add a surplus of work besides every new connection crowds the present system which is already overtaxed and unless a central is established with a bigger staff with better wages given, any further connection of any kind must absolutely be limited if any sort of public satisfaction can be expected.

ANTICOSTI ISLANDS.

No additional mileage since last report; Fox Bay Station still closed during winter months, but in connection by telephone with Heath Point office during the fishing season; from thence, business is transmitted on telegraph line.

Last season, as per agreement with the Department, arrangements were made to build four new camps along the island for the use of repairers, which camps are of the utmost urgency; owing to inability to get suitable boards down here, we were unable to have these camps built. I hope the department will be able to forward, this season, to South Point (being central place where camps have to be erected) the boards, so as to enable us to erect these camps.

Temporary repairs were made to old camps so as to shelter repairers during last winter. However, windows, doors, sashes and frames were made ready and as soon as the boards are landed at South Point, carpenters will be sent down to build these camps.

Stormy weather has again played havoc with our telegraph poles. A few have been washed to sea and a good number fell on the beach. I am pleased to say that our land line has been the whole year round in good working order with the exception of an interruption between Heath Point and South Point stations which lasted from October 23rd to November 13th.

The Gaspe.—South West Point cable, I am glad to say, is working very well ever since repaired by the staff of cable-ship ss. "*Tyrian*" in May, 1913.

The North Shore cable became again interrupted on October 15th, 1917, and is still out of working order. The cable-ship "*Tyrian*" was over last fall, but owing to

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rough weather and lateness in the season, she was compelled to go back without a chance to repair it.

The number of telegraph stations is the same as reported in my last report, viz.: eight in number. All the members of the staff are the same.

NORTH SHORE ST. LAWRENCE LINES.

East of Bersimis.

The line worked continuously, the interruptions being few and of short duration and local character.

No change of importance has been made in the agencies during the year, Miss Mary Chevalier of Bonne Espérance died in January 1917 and was replaced by Miss Hella Chevalier.

The accommodation office at Shelter Bay, 9 miles east of May Islands was temporarily closed on May 10th (1917) and accommodation office at Manitou 3 miles west of Rivière aux Graines has been reopened on October 21st 1917.

A new telephone line was built at Natashquan in the month of September, 1917, to establish communication between the two villages there, a distance of five miles. In October 1917, at Aguanus one mile and a quarter of telephone line was erected on the existing poles, to accommodate the people residing on the west side of the river.

West of Bersimis.

General repairs were carried on throughout this division, the various lines working satisfactorily. No additional mileage and no change in staff. The revenue shows a slight increase over last year.

QUEBEC COUNTY LINES.

The revenue shows an increase of 40 per cent over the previous year. The lines worked satisfactorily and were maintained in good repair.

QUARANTINE LINES.

As in previous years, many of our cables were broken by ice and other causes.

The Crane Island-Montmagny cable raised on November 15, 1916, was relaid on May 11, 1917, and worked well throughout the season.

Under special instructions we proceeded to raise this cable on November 26, 1917, which we were unable to do owing to weather conditions and after much battling with the ice succeeded in reaching the St. François wharf with the bateaux and tug where they remained for the winter. On November 17, the cable was carried away by a gas buoy drifting with the ice.

The Grosse Isle-Ste. Margaret island cable broken in December, 1916, was repaired in May, 1917. The Ile aux Réaux-Grosse Isle cable was interrupted on December 22, 1916, and being badly damaged throughout its length we reeled it up and repaired it as well as possible and relaid it on May 19.

The St. François-Ile aux Réaux cable was interrupted on December 22, 1916, was repaired in May, 300 feet of new cable having been added.

One of the Ange Gardien telephone cables was interrupted on January 5, 1917, and repaired in May, 150 feet of new cable being added near Ange Gardien. On November 18, the extension of the telephone line from Orleans Island to Grosse Isle was commenced, two spare cables north and south of Ile aux Réaux and a second wire strung on the Réaux pole line completing the circuit to Grosse Isle where connection was made with the Crane Island cable.

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In July and August, 75 new cedar poles were planted on the Ste. Famille section and east of the St. Jean office to replace those broken by sleet storm in March.

During the month of April, the military line was extended from Maheux Bay to St. Laurent wharf, this line being under the control of the Naval Department.

On June 1st, the Agency at Ste. Famille was transferred to Mr. Joseph Premont from Mr. Nap. Pichette who resigned.

(PELEE ISLAND.

1st. Re-Cable: When repairing in June 1917, we found the cable damaged, but not parted, by ice shoves about six to eight miles off the mainland shore, where the water is about fifty feet deep. After being repaired it worked well until damaged by vessels on October 24, repair of such damage being completed November 12; it again worked all right until December 9, when it ceased working during a terrific storm when some vessels are supposed to have caught it in their anchors and broken it. By instructions from the Department, I am preparing to repair it as soon as ice and weather permit.

2nd. Re-Point Pelee branch: The Mersea Municipal Telephone system had this branch connected with their system through the Bell Telephone Coy's wires at Leamington during the month of December 1917.

NORTH WEST LINES, SASKATCHEWAN.

There has been a noticeable improvement over previous years in the proper maintenance of the lines, partly due to the keen interest shown by all agents and most of the linemen, as well as to the C.P.R. Dynamo at Saskatoon, which proved most beneficial in attaining this gratifying result.

A few interruptions occurred on the Saskatoon loop, but less frequently and of shorter duration than formerly.

On the Moose Jaw-Wood Mountain line, interruptions were frequent during the month of March, business has been very satisfactory on the whole, especially in view of existing conditions.

Shifting line to roadway.—The sum of \$5,000 was appropriated for the purpose of shifting the line to road allowances, of which \$2,662.88 was expended in removing about 15 miles in the vicinity of Eagle Creek. This work had to be done in the latter part of November when the snow was on the ground, and this accounts for the expenditure being somewhat higher than it otherwise would have been.

Repairs and improvements.—Considerable repairs and improvements to buildings have been made at several points, and out of an appropriation of \$2,400 for the purpose, \$1,984 was spent as follows:—

Green Lake \$100; Onion Lake \$300; Glaslyn \$349.22; Willow Bunch \$87.75, and Battleford \$1,147. Of this latter amount, \$797 was used for the construction of an office for the District Superintendent, and the balance in painting the whole of the buildings on the premises.

Wood Mountain line—re-poling.—An appropriation of \$5,000 was made for the purpose of re-poling the Wood Mountain—Willow Bunch line, of which \$4,681.65 was expended. This amount was only sufficient to purchase the poles and to have same hauled to the ground. A further sum will be required to complete the work.

Battleford—Isle-la-Crosse completion.—The sum of \$811.71 was expended out of an appropriation of \$1,600 to complete the line into the village.

All the high poles were erected and everything else put in readiness; there remains now only the stringing of the wire across the rivers. Owing to the wire, insulators and brackets reaching destination too late to catch the last freighters for the North, it was found necessary to postpone the final work until the rivers open up.

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Saskatoon loop.—The construction of the Saskatoon loop was found to be impracticable on account of the lateness of the season when the money for this purpose became available.

ALBERTA.

No additional mileage.

The usual general repairs were performed and the various lines gave efficient service.

BRITISH COLUMBIA.

Mainland.

Business has been very satisfactory, although not showing quite as large an increase as last year. There were 53,013 messages sent and 50,568 messages received, with total revenue \$30,270.53. This is gratifying, considering that during the year we have closed up twelve telephone offices between Enderby and Vernon and Vernon and Penticton in the Okanagan valley, as per agreement with the Okanagan Telephone Company in April 1917.

Thirty-one miles of new lines were built during the year. There still remains fourteen miles of poles to be set on the Arrow lakes, the poles having been purchased and delivered during the year 1917-18. On account of the appropriation not being available until October, the whole of this work could not be carried out, as the winter weather in that section sets in early and the work had to close down in December.

There is fourteen miles of wire yet to be strung in on the Waneta-Pend D'Oreille line, the wire not being available last fall. This work will be completed just as soon as the wire arrives, and the balance of the appropriation is available.

Thirty-three miles of line was repoled, fifty-two miles of pole line reset.

KAMLOOPS TO KAMLOOPS SECTION—464 MILES.

(Via Nicola—Penticton and Vernon.)

The line from Kamloops to Merritt, 61 miles, is in good shape and has caused very little trouble during the year, as it was all reset in 1916-17, and well guyed. At Merritt and Nicola exchange, repairs and improvements were made to meet the services at these points. The section from Merritt to Princeton seventy-six miles was to have been rebuilt right through, but on account of the lateness of the season before the appropriations were available it was only repoled from Princeton to Otter Valley nineteen miles. The balance of this section will be required to be rebuilt this year as the pole line is in very bad shape. The old poles having been reset twice already and only were twenty five foot in the first place, are now too short to use again. At Princeton on the local exchange several improvements and extensions were made to meet the demand for local service. At Copper Mountain, fourteen miles south of Princeton, a local exchange was established during the year with seventeen subscribers and one pair extra wires strung between Copper Mt. and Princeton for local use. Business has been very satisfactory at both Princeton and Copper Mountain.

The section between Princeton and Penticton is in splendid shape, having been rebuilt in 1916-17.

At Keremeos an extension was built during the year to Similkameen, ten miles, and local improvements and extension on the Keremeos local exchange.

The section from Vernon to Kelowna has been thoroughly overhauled, during the year, all poles that were fit were reset and new poles supplied where necessary. The spur, three miles to Okanagan Landing and the spur two miles to Okanagan Centre, and the branch line three miles to Okanagan Mission were taken down and the poles

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used in the rebuilding of the main line. The commission offices at these three points were closed as the Okanagan Telephone Company are now able to give them all the service required and connection is now made at Vernon to these points from the Government system.

KAMLOOPS—MOUNT OLIE SECTION.

(North Thompson—86 miles.)

Business has been very good from the offices on this section. In the month of September, a severe storm struck a portion of the line near Louis Creek and took down three miles of pole line. Repairs were promptly made and outside of this trouble only the ordinary repairs were necessary. Next year the upper portion of this line between the Barriere and Chu Chua will require overhauling and poles reset.

HEFFLY CREEK—UPPER LOUIS CREEK SECTION—37 MILES.

During the year, the line was extended to Sullivan Valley (a spur six miles) and also to Dominion Forestry Cabin. Several more offices were opened during the year. The only trouble we had over this section was by windfalls, the line running through timber for a considerable distance.

KAMLOOPS TO SAVONA SECTION—28 MILES.

As this section runs through open country most of the way very little trouble has been experienced during the year, and the line has been working very satisfactorily. Connection is made at Cornwalls with the Dominion Forestry Branch line to Green Mountain.

KAMLOOPS—GOOSE LAKE SECTION—14 MILES.

Important connection is made at Goose Lake office with the Dominion Forestry Branch line to Fish Lake at which point we have opened an office. This line is in very good shape as it was only built in 1916. The settlers south of Goose Lake are very anxious to have the line extended to Long Lake District. An appropriation has been asked for to have the work carried out this year if possible.

KAMLOOPS—ROSE HILL SECTION—14 MILES.

All the poles on this line were reset this past year, the line well guyed, and put in good shape.

KAMLOOPS—REVELSTOKE SECTION—218 MILES (via Chase, Salmon Arm and Sicamous).

This section is one of the most difficult to keep up that we have on our system. After it leaves Chase it follows a trail on the northside of Shuswap Lake to Celista, then crosses the lake by submarine cable to Sorrento. After the line leaves Enderby there is very little of this section that there is a waggon road to follow. There has been quite a number of snow-slides to contend with between Taft and Revelstoke, but in face of these difficulties there has not been very many bad interruptions and what there were, were of short duration. To enable us to give a first class service between Kamloops and Revelstoke it will be necessary to extend the metallic circuit from Malakwa to Sicamous to overcome the heavy telegraph induction we get on our single grounded line from the C.P. Telegraph circuits. We were able last year to metallic

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it from Revelstoke to Malakwa, which made a great improvement, and we hope we will be able to extend it through to Sicamous this year. Last fall, the section along the east side of Mara Lake was poled with thirty foot cedar poles and the wire was transferred from the trees, where it was placed when the line was built through in 1915, as, at that time, there was no road but it has since been built.

WHITEMANS CREEK SECTION—30 MILES.

This branch line which is situated on the west side of the Okanagan Lake is connected to the main system at Kelowna. This line has proven to be a great convenience to the fruit growers and shippers on that side of the lake, as they have to depend entirely on boat service for their mail.

PENTICTON—MIDWAY SECTION—93 MILES—(via Osoyoos).

This section of the line runs south from Penticton to Osoyoos at the boundary line, where connection is made with the P.T. & T. lines throughout the State of Washington. At Midway we connect to the B.C. Telephone Co.'s lines through to the Kootenay. There has been a marked improvement in business from the offices on this line during the year.

MERRITT—MAMETTE LAKE SECTION—37 MILES.

This extension which includes Canford Spur was built through from Merritt as far as Steffens ranch in 1916-17. The construction was completed to Mamette Lake P.O. this past year. Three more offices were opened. This line serves a very important district and brings the settlers in direct touch with Merritt and other important points on our system.

NELSON—TRAIL SECTION—61 MILES.

This line is a very important branch south of Nelson running through a timber and mining district, as far as Trail and serves a very useful purpose linking up the several intermediate offices with the B.C. Telephone Co., system at these two points. Very satisfactory business was received during the year. An extension from Waneta, 14 miles, east up the Pend D'Oreille Valley was constructed last fall, but as the wire has not yet arrived, no new offices have yet been opened. As soon as completed there will be five additional offices, therefore, a considerable increase in revenue expected.

PROCTER—CRESTON—YAHK SECTION—90 MILES.

During the year, this line was completed right through to Yahk where connection is made with the Kootenay Telephone Co. linking up the Nelson and the Cranbrook districts. Five new offices were opened. The whole line right through from Procter to Yahk is in good shape and a very fair revenue received, considering the sparsely settled district along the Kootenay Lake between Procter and Creston.

THE ARROW LAKE SECTION—85 MILES.

The line extends along the Arrow Lakes from Nakusp to Edgewood built in 1913 and from Castlegar to Deer Park built in 1916-17. The line was also completed through from Deer Park to Renata last June and offices opened at these points.

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Last fall, construction work was commenced on the intervening link between Edgewood and Renata twenty-nine miles, but only fifteen miles of pole line was completed, as the work could not be undertaken until late in October, the appropriation not being available. The balance of the line will be completed this year and will link up two important sections of our system and will give Nakusp and all intermediate offices connection direct through to Nelson and district. The telephone is a very important utility in a district such as the Arrow Lake, where they have to depend on steam boat service, and where the lakes often freeze up for several weeks during the winter months, but for the telephone service the people would be isolated entirely.

GOLDEN-WINDERMERE.

New telephone and telegraph rates were established last June throughout the districts which have been adopted by the Department. The telephone rates are based on air line mileage and a minimum of a three minute conversation with a minimum of 20 cents call, and 5 cents each extra minute for a distance up to twenty-four miles; for twenty-five miles 25 cents, and for every seven miles over twenty-five miles add 5 cents up to fifty miles; over fifty miles add 5 cents for every ten miles. This makes a very fair rate and is the same rate as adopted by the Okanagan Telephone Co., so that there is not a conflict of rates between the two companies between which there is considerable transfer of business.

VANCOUVER ISLAND.

The revenue shows an increase of 30 per cent over the previous year. No additional lines were constructed.

YUKON.

The work on this system was confined to the usual overhauling by the general repairers. No additional mileage.

Cable Ship "Tyrian," Operations 1917-18.

On April 1, 1917, had 5.50 knots deep-sea second-hand, and 7.50 knots new deep-sea cable on hand. Laid as follows during season in knots: April 2, Whitehead Island, 0.05; April 9, Herring Bay, 0.28; April 16, Duck Island, Nantucket, 1.11; August 18, Port Hood, 0.17; August 30, Harrington, 2.89; September 13, Whale Cove-Meadowbrook, 0.10; October 27, Meat Cove-Old Harry, 0.06; November 13, Long Point, 1.21; February 28, 1918, Gannet Rock, 0.20; March 16, Eastport-Owen-Head, 0.46; March 21, Johnston's Cove-Deer Island, 0.58; March 30, Seal Island, 0.04; March 31, Coffin Island, 0.41. Cable on hand, 5.34.

Shore End Cable.—April 1, on hand, 1.38; October 27, laid Meat Cove S.E., 0.05; March 16, picked up Eastport-Owens Head, 0.13; March 27, laid Lube channel, 0.13. April 1, cable on hand, 1.33. Four-core cable on hand, 1.19. Two-core cable on hand, 1.50.

COLLECTION OF REVENUE.

By E. T. SMITH, COLLECTOR OF PUBLIC WORKS REVENUE.

For the fiscal year ended March 31, 1918, the large deficit in public works revenues dealt with by this office calls for an explanation. The revenue accrued from slides and booms was \$40,122.87 less than for the previous year. In the year 1916-17, the revenue was \$80,150.45 from the St. Maurice works. On the 18th February, 1917, these works were leased to the St. Maurice River Boom and Driving Association of Three Rivers for \$1 per annum. They were to operate and maintain the works, collect the tolls established by Order in Council, and pay over to the Government any surplus of revenue over the expenditures mentioned. At the close of their financial year, their accounts showed that there was due the Government \$30,910.33 for the year 1917-18, leaving, apparently, \$49,240.12 of a deficit, but it must be borne in mind that the \$30,910.33 was net revenue after expense of maintenance, etc., had been paid, while in former years we only showed gross collections, and no deduction for cost of operation. The company, however, contests our claim for this \$30,910.33 on the ground that they have constructed certain works for which they should be allowed \$20,073.25. It is a condition of the lease that any extensions or improvements made by the company were first to receive the approval of the Honourable the Minister of Public Works, and the cause of the dispute lies in this condition because the works for which they claim to be allowed credit to the above amount of \$20,073.25, were constructed by the company, although notified that the cost of the same should not be deducted from the tolls they were to collect. It may be only proper to state here that in 1916-17 we had a surplus of \$28,189.26 and in the previous year also a surplus of \$19,812.10, and the larger surplus of 1917-18 was principally due to the small amount required for repairs owing to the good condition of the works.

On the whole, excepting in the St. Maurice district, where the bulk of the wood is used for pulp and paper, it is not surprising that revenue from slides and booms should be smaller than it really has been for the last two years when we consider how difficult it was to obtain man labour for production in the woods and driving the streams. Private boom companies have been obliged to increase their rates very greatly in order to make ends meet. We are, unfortunately, not in the same position as our rates of tolls are fixed, and as it has not been the practice to display in this report the actual cost of operation as well as of revenue where works have in previous years yielded large profits, these would not be taken into account when considering the losses consequent upon war conditions which have prevailed during the past four years. Many large concerns have gone entirely out of business for the time being because they could not get satisfactory labour even at the high rates of wages and the high cost of subsistence which have prevailed during that period.

In the matter of rents and sales accrued during the year, there was a deficit of \$64,858.92, but the collections showed an increase of \$11,476.07. This increase was due to considerable large sums received in final settlement for properties expropriated in Ottawa. The decrease in the amount accrued is principally due to the properties which formerly yielded considerable revenue having been taken over for Government uses, and partially to the fact that in the previous year there was quite a large sum which came to account in the final settlement for many of these expropriated properties.

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The following is a brief summary of the revenue dealt with by this office:—

During the year 1917-18, the revenue accrued from public works shows a decrease of \$103,416.01, being \$188,900.10, while in the preceding year it was \$292,316.11. The collections also show a decrease of \$67,912.39, being \$188,877.18, while in 1916-17 they amounted to \$256,789.57.

The revenue accrued from slides and booms was \$57,073.14, or \$40,122.87 less than for the year ended March 31, 1917. The collections were \$26,187.92, or \$70,954.24 less than for the previous year. The outstanding uncollected revenue from slides and booms is \$30,885.22 greater than in 1916-17.

The graving docks yielded \$56,484.16, or \$1,565.78 more than in 1916-17.

Sales and rents collected amounted to \$106,205.10, being \$11,476.07 more than in the preceding year.

I now submit the particulars in detail, relative to the several services under their respective heads.

SLIDES AND BOOMS.

OTTAWA DISTRICT.

The tolls charged up amounted to \$25,877.65, or \$9,826.68 more than in 1916-17. The number of sawlogs that passed through the works was 3,575,739, or 1,059,364 pieces more than the previous year. Of square timber there was none.

All the revenue accrued during the year was collected. Of the dues accrued since July 1, 1889, when this department took over the collection, there remains uncollected \$9,161.61. Of the dues accrued before July, 1889, there still remains \$56,805.65, all of which should be written off.

The accounts for the Ottawa district stand thus:—

Dues accrued during the year to March 31, 1918..	\$25,877 65
Outstanding, March 31, 1917..	9,200 46
	<hr/>
	\$35,078 11
Collected..	25,916 50
	<hr/>
Balance outstanding, March 31, 1918..	\$9,161 61
Being composed of—	
Dues of 1889-90..	\$6,903 05
" 1890-91..	28 42
" 1892-93..	379 80
" 1896-97..	196 71
" 1903-04..	637 37
" 1911-12..	723 63
" 1912-13..	251 15
" 1913-14..	25 31
" 1914-15..	16 17
	<hr/>
	\$9,161 61

Balance of dues outstanding prior to July 1, 1889, when this department took over the collection was \$56,805.65.

Herewith are statements in detail.

No. 1.—Statement of the number of pieces of square timber, sawlogs, etc., which passed through the Ottawa works during the year ended March 31, 1918.

No. 2.—Statement of dues accrued from each of the slides and works of the Ottawa district during the year ended March 31, 1918.

Apart from the two accounts amounting to \$1,044.68, all the revenue from the Ottawa slides and booms, since I took charge in 1889, has been collected, excepting such as should have been written off long ago, or a few items in dispute which I expect will have to be forgiven.

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The number of sawlogs which passed through the works during the past year was 1,059,364 more than during the previous season, and there were 8,862.32 cords of pulpwood less than in 1916-17.

ST. MAURICE DISTRICT.

The revenue accrued from this district was \$30,910.33, being \$49,240.12 less than in 1916-17. The apparent discrepancy between the decrease in revenue and the large quantity of logs passed through the works is explained at the beginning of this report. With the exception of an item of \$3,709.62 dues of 1909-10, disputed, all the dues accrued in this district since I took it in 1892 have been collected until this year when the above \$30,910.33 is also disputed.

The amount outstanding prior to July 1, 1892, remains unchanged, viz., \$14,481.49, and should be written off.

The number of pieces of all kinds of timber that passed through the works was equivalent to 10,658,333 pulp and sawlogs, or 186,542 pieces less than the previous year.

NEWCASTLE DISTRICT.

The dues accrued from this district amounted to \$8.74, being \$489.35 less than the previous year, which has been collected at this date.

The totals outstanding on March 31, 1918, amounted to \$3,565.63, of which \$3,521.19 should be written off in accordance with a judgment of the Exchequer Court. \$35.70 will also have to be forgiven, the debtor being hopelessly insolvent at the time of his decease.

SAGUENAY DISTRICT.

The dues accrued during the year ended March 31, last, amounted to \$276.42, all paid but \$20, being \$220.08 less than in 1916-17.

GRAVING DOCKS.

ESQUIMALT GRAVING DOCK.

The revenue from this service was \$15,541.65, being \$1,930.43 less than the previous year (*see statement No. 3*). Of the 109 days the dock was occupied during the year, it was used for 27 days by H. M. and C. G. vessels.

The total number of vessels docked was 19, of 52,550 tons.

LEVIS GRAVING DOCK.

The revenue was \$3,013.04 more than for the year 1916-17, being \$29,228.15 (*see statement No. 4*). During the season of navigation, the dock was occupied for 180 days by 20 vessels of 41,665 tons.

During the winter of 1917-18, it was occupied by ss. *John S. Thom* and *Dredge Pulling*.

KINGSTON GRAVING DOCK.

On May 1, 1910, the Kingston Shipbuilding Co. took possession of this dock under lease, the rental of which, \$10,000 per annum, was payable at the end of each year. One of the conditions of the lease was that they should erect and keep in running order a repair plant, but this business, they claim, did not come up to expectations. On the contrary, it resulted in serious losses, and rent was reduced to \$5,000 per annum from the 1st May, 1917.

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SELKIRK REPAIR PLANT.

During the last fiscal year, the revenue was \$1,714.26, being \$533.17 more than the previous year. The slip was occupied for 67½ days of the season of navigation by 40 vessels of 4,750 tons (see statement No. 5).

RENTS.

During the year 1917-18 the revenue accrued from Government properties has been, from rents, sales and interest, \$75,342.80, or \$64,858.92 less than the previous year.

The account stands thus:—

Balances from previous years.....	\$ 69,159 20
Accrued, year ended March 31, 1918.....	75,342 80
Making.....	<u>\$144,502 00</u>
Collected.....	\$106,205 10
Balance, March 31, 1918.....	18,954 89
Written off.....	19,342 01
	<u>\$144,502 00</u>

The amount written off, namely, \$19,342.01, is composed of commission on collection; cost of maintenance, allowed in lieu of repairs, or cancelled on account of poverty, as well as a number of items which have been on the books for years, some of them dating back to 1880, the parties owing the same have disappeared through death and otherwise and leaving no tangible assets.

The amount apparently uncollected, \$18,954.89, seems to be large, but \$10,600.62 of this is composed of two old items, one for Dunnville Bridge, Ont., and the other the Dundas and Waterloo road, which business came to this department from the Inland Revenue Department in 1909. These items will be carefully looked into and possibly before the end of the current year some decision may be arrived at in regard to them. As for the balance, \$8,354.27, much of this has been paid or settled since the close of the last financial year.

In the administration of these properties there are serious obstacles to obtaining as favourable results, rentals, etc., as compared with the same property in the hands of private individuals. The latter can make terms, periods of leases, etc., as they see fit, but we cannot give any assurance in most cases for more than a thirty-day-term, as we do not know when some of these properties may be required for Government purposes. Hence, we cannot expect to obtain as good rentals as parties who can give a lease for one or more years, and I may say here that this condition makes it difficult for our agents to retain the tenants we may have. The four agents who look after the Wellington street property have done their work well, and I do not anticipate much loss of rent, except perhaps from unavoidable misfortune to some of our tenants.

The following is a summary of rents collected from public properties during the year ended March 31, 1918, viz.:—

Hydraulic and other rents.....	\$ 3,554 50
Ottawa, Sussex street.....	2,161 00
" Egan Block.....	199 92
" Wellington street, north.....	72,578 13
Toronto Post Office site.....	7,186 83
Province of Manitoba.....	441 00
Victoria and Vancouver, B.C.....	1,537 50
Public Building sites.....	5,647 63
Sundry places.....	2,021 09
Sales and interest.....	2,382 50
Sand dredging.....	8,495 00
	<u>\$106,205 10</u>

9 GEORGE V, A. 1919

COMPARATIVE TABLE of Public Works Revenue accrued during the year ended March 31, 1918, compared with that of the Fiscal Year ended March 31, 1917, and amounts collected on account of same.

	Year ended March 31, 1918.	Year ended March 31, 1917.	Increase, 1918.	Decrease, 1918.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Slides and Locks—				
Ottawa district.....	25,877 65	16,050 97	9,826 68	
St. Maurice district.....	30,910 33	80,150 45		49,240 12
Newcastle district.....	8 74	498 09		489 35
Saguenay district.....	276 42	496 50		220 08
Net decrease, \$40,122 87	57,073 14	97,196 01	9,826 68	49,949 55
Graving Docks—				
Esplanade, B. C.....	15,541 65	17,472 08		1,930 43
Kingston, Ont.....	10,000 00	10,000 00		
Leves, P. Q.....	29,228 15	26,215 11	3,013 04	
Saguenay repair slip, M. A.....	1,714 36	1,181 19	533 17	
Haileybury slip, Ont.....		50 00		50 00
Net increase, \$1,525 78	56,484 16	54,918 38	3,546 21	1,980 43
Rents and Sales—				
Hydroelectric rents.....	3,487 00	3,487 00		
Municipal works.....	26 00	26 00		
Other public properties.....	71,829 80	136,688 72		64,858 92
Net decrease, \$64,858 92	75,342 80	140,201 72		64,858 92
Accrued—				
Slides and Locks.....	57,073 14	97,196 01		40,122 87
Graving docks.....	56,484 16	54,918 38	1,565 78	
Rents and sales.....	75,342 80	140,201 72		64,858 92
Net decrease, \$103,416 01	188,900 10	292,316 11	1,525 78	104,981 79
Collected—				
Slides and Locks.....	26,187 92	97,142 16		70,954 24
Graving docks.....	56,484 16	64,918 38		8,434 22
Rents and sales.....	106,205 10	94,729 03	11,476 07	
Net decrease, \$77,912 00	188,877 18	256,789 57	11,476 07	79,388 46

No. 1.—STATEMENT of the number of pieces of square timber, saw-logs, etc., that passed through the Government slides and works on the Ottawa river and its tributaries during the fiscal year ended March 31, 1918.

	Feet
Square timber.....	None.
Saw-logs.....	3,575,739
Boom and dimension timber.....	20,952
Railway ties.....	30,906
Fence posts.....	11,142
Telephone poles.....	2,018
	3,640,757

Also 26,462.4 cords pulpwood.
The revenue accrued on the above was \$25,877.65.

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No. 2.—STATEMENT showing the dues accrued on the undermentioned works on the Ottawa river and its tributaries during the fiscal year ended March 31, 1918.

Main Ottawa..	\$ 1,806 93
Cheneaux boom..	2,877 81
River Petewawa..	3,863 36
Coulange..	3,678 38
Dumoine..	252 32
Black river..	6,722 18
Gatineau..	6,676 67
	<hr/>
	\$25,877 65

THE DRY DOCK AT ESQUIMALT, B.C.

No. 3.—STATEMENT of Dues and other charges collected during the year ended March 31, 1918.

Name of Vessel Docked.	Tonnage.	Period of Dockage.		Dockage Charges.	Other Charges	Total.
		From	To			
		1917.	1917.	\$ cts.	\$ cts.	\$ cts.
D. G. S. "Lilloet".....	574	April 2...	April 4...	300 00	4 80	304 80
SS. "Don Emelio".....	3651	" 10...	" 13...	565 10	12 00	577 10
SS. "Princess Charlotte".....	3844	" 20...	" 22...	392 20		392 20
SS. "Prince Rupert".....	3379	" 23...	June 13...	5,626 00	224 80	5,850 80
D.G.S. "Malaspina".....	392	July 16...	July 20...	450 00	9 00	459 00
SS. "El Lobo".....	4800	Aug. 15...	Aug. 23...	1,216 00	38 20	1,254 20
D.G.S. "Galiano".....	393	" 27...	Sept. 1...	550 00	19 20	569 20
H.M.C.S. "Rainbow".....	1911	Sept. 17...	" 21...	486 65	5 40	492 05
SS. "Princess Charlotte".....	3844	" 25...	" 27...	392 20	12 60	404 80
SS. "Niels Nielson".....	5729	Oct. 12...	Oct. 25...	2,025 00	119 40	2,144 40
SS. "Princess Charlotte".....	3844	Nov. 10...	Nov. 10...	200 90		200 00
SS. "Princess Charlotte".....	3844	" 25...	" 26...	200 00	25 20	225 20
SS. "Buyo Maru".....	2898	Dec. 21...	Dec. 22...	345 00	1 20	346 20
SS. "Adelaide".....	3060	Jan. 10...	Jan. 11...	200 00	6 00	206 00
C.G.S. "Malaspina".....	392	" 17...	" 22...	500 00	3 00	503 00
SS. "Charmer".....	1044	" 29...	" 29...	200 00		200 00
D.G.S. "Galiano".....	393	Feb. 7...	Feb. 13...	550 00	13 20	563 20
SS. "Princess Charlotte".....	3844	March 4...	March 6...	392 20	13 20	405 40
SS. "Arabien".....	4714	" 9...	" 11...	435 70	8 40	444 10
	52,550			15,026 05	515 60	15,541 65

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THE DRY DOCK AT LEVIS, P.Q.

No. 4.—STATEMENT of Dues and other charges collected during the year ended March 31, 1918.

Name of Vessel Docked.	Tonnage.	Period of Dockage.		Dockage Charges.	Other Charges.	Total.
		From	To			
		1917.		\$ cts.	\$ cts.	\$ cts.
SS. "Carib"	2,118	May 15	May 28	1,231 24	7 25	1,238 49
Tug "Bartlett"	328	April 25	May 12	1,050 00		1,050 00
SS. "McVette"	2,046	Win	ter.	823 00		823 00
Dredge "Fruhling"				200 00		200 00
Yacht "Courcellette"		Win	ter.	200 00		200 00
Dredge "Galveston"		Win	ter.	800 00		800 00
Dredge No. 2, Grain Boat	1,474	April 25	May 12	50 00		50 00
SS. "Cartier"	556	April 25	May 12	1,100 00		1,100 00
SS. "Lady Grey"	733	May 15	May 28	650 00	2 50	652 50
SS. Schenckill	2,440	July 20	Aug. 17	2,277 20	41 40	2,318 60
SS. "Royal Transport"	4,652	June 21	July 24	4,405 12	12 50	4,417 62
SS. African Transport	4,482	June 15	June 21	896 40	69 50	965 90
SS. Susquehanna	2,782	Aug. 19	Aug. 27	1,138 48	16 50	1,154 98
SS. "Kilbergen"		Entry	fee.	200 00		200 00
Dredge "Ottawa"		Sund	ries.		29 56	29 56
SS. Lucerne	3,247	Aug. 28	Sept. 27	3,388 44	36 50	3,424 94
SS. "John S. Thom"		Entry	fee.	200 00		200 00
Strs. "Levis" and "Lauzon"		Entry	fee.	400 00		400 00
Str. "Polaris"	533	Sept. 29	Oct. 23	250 00		250 00
SS. "Sincor"	913	Sept. 29	Oct. 23	1,300 00	9 00	1,309 00
SS. Mahoning	2,189	Oct. 27	Nov. 7	1,150 24	64 00	1,214 24
SS. "Edmonton"	1,985	Nov. 3	Nov. 9	1,242 35	52 25	1,294 60
SS. "Saranac"	2,669	Nov. 9	Nov. 21	1,433 80	21 00	1,454 80
SS. "Druid"	503	Oct. 27	Nov. 7	700 00	16 00	716 00
SS. "Seneca"	2,669	Nov. 23	Dec. 5	1,433 80	10 50	1,444 30
SS. "Champlain"	522	Nov. 23	Dec. 5	750 00		750 00
SS. "Northern Light"	2,476	Dec. 5	Dec. 6	499 52	213 00	712 52
SS. "German"	2,348	Dec. 12	Dec. 16	496 96	128 25	625 21
Dredge "Fruhling"		Entry	fee.	200 00		200 00
Dredge "Ottawa"		Sundries.			31 89	31 89
	41,665			28,466 55	761 60	29,228 15

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THE REPAIR SLIP AT SELKIRK, MAN.

No. 5.—STATEMENT of Dues and other charges collected during the year ended
March 31, 1918.

Name of Vessel Docked.	Tonnage.	Period of Dockage.		Dockage Charges.	Other Charges.	Total.
		From	To			
		1917.	1917.	\$ cts.	\$ cts.	\$ cts.
Str. "Amisk"	32	May 10.	May 11.	25 00		25 00
Str. "Grand Rapids"	438	May 1.	May 14.	118 26		118 26
Str. "Rocket"	56	May 19.	May 21.	25 00		25 00
Str. "Goldfield"	56	May 21.	May 23.	25 00		25 00
Str. "Laura"	30	May 21.	May 23.	25 00		25 00
Str. "Majestic"	127	May 23.	May 31.	78 74		78 74
Str. "Laura"	30	June 1.	June 2.	25 00		25 00
Bge. "Saskatchewan"	219	June 1.	June 4.	59 13		59 13
Str. "Lady of the Lake"	201	June 5.	June 16.	166 83		166 83
Launch "Victoria"		June 19.	June 21.	35 00		35 00
Str. "Wolverine"	278	June 29.	June 30.	55 60		55 60
Dredge 205	248	May 3.	May 4.	49 60		49 60
Two Mud Scows	160	May 3.	May 4.	32 00		32 00
Mud Scow for D. 204	60	May 7.	May 8.	25 00		25 00
Str. "Friday"	26	May 5.	May 7.	25 00		25 00
Tug "Peguis"	26	May 8.	May 9.	25 00		25 00
Mud scow D. 202	60	May 9.	May 10.	25 00		25 00
Str. "Grand Rapids"	438	July 9.	July 9.	87 60		87 60
Str. "Lady of the Lake"	201	July 12.	July 12.	40 20		40 20
Str. "Friday"	26	June 28.	June 29.	35 00		35 00
Bge. Alexandra		Aug. 4.	Aug. 6.	25 00		25 00
Str. "Daisy"	58	Aug. 7.	Aug. 8.	25 00		25 00
Str. "Tempest"	75	Aug. 7.	Aug. 8.	25 00		25 00
Str. "Goldfield"	56	Aug. 9.	Aug. 11.	40 00		40 00
Str. "Lady of the Lake"	201	Aug. 27.	Aug. 27.	40 20		40 20
Tug "Vaughan"	134	Aug. 29.	Aug. 29.	26 80		26 80
Mud scow D. 204	80	Aug. 30.	Aug. 30.	25 00		25 00
Bge. Fort Alexander	316	Sept. 10.	Sept. 11.	63 20		63 20
Str. "Cygnet"	18	S-pt. 18.	Sept. 22.	55 00		55 00
Str. "J. R. Spears"	31	Sept. 22.	Sept. 24.	25 00		25 00
Str. "Garry"	120	Sept. 29.	Sept. 29.	25 00		25 00
Dredge 204	132	Sept. 25.	Sept. 29.	56 40		56 40
Str. "Phyllis Williams"	164	Oct. 12.	Oct. 17.	62 80		62 80
Barge "Marvel"		Nov. 1.	Nov. 2.	25 00		25 00
Str. "Wolverine"	278	Nov. 5.	Nov. 6.	55 60		55 60
Mud scow D. 205	80	Oct. 4.	Oct. 5.	25 00		25 00
Mud scow D. 205	80	Oct. 5.	Oct. 10.	55 00		55 00
Mud scow D. 202	80	Oct. 20.	Oct. 20.	25 00		25 00
P.W.D. coal barge		Oct. 25.	Oct. 26.	25 00		25 00
Dredge No. 201	132	Nov. 7.	Nov. 7.	26 40		26 40
	4750			1,714 36		1,714 36

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Inverness post office	383 74	556 16	234 90	384 30	45 00	1,604 10
Kentville experimental farm	425 43	1,072 40
" post office, etc.	56 18	.....	572 26	800 61	174 33	50 00	.....	1,653 38
Liverpool post office, etc.	56 30	.....	516 11	372 00	193 04	18 00	.....	1,155 45
Lunenburg post office.	56 00	.....	667 91	406 22	617 56	59 00	.....	1,806 69
Nappan Experimental farm .....	.....	.....	.....	35 00	251 87	.....	.....	4,221 86
New Glasgow post office, etc	117 69	.....	578 58	470 90	622 95	100 00	.....	1,890 12
North Sydney immigration building	27 76	.....	.....	125 00	13 82	.....	.....	166 58
" post office	330 19	150 00	561 56	435 70	685 58	.....	.....	2,163 03
" D.P.W. (Dist. Engin. Office) .....	.....	455 25	.....	.....	1 00	9 00	.....	465 25
Parrsboro, post office	675 95	32 50	686 41	300 00	308 24	52 00	.....	2,055 10
Pictou custom house, etc.	644 71	.....	306 50	443 37	16 21	75 00	.....	1,485 79
Pictou post office	323 45	.....	303 65	331 25	152 68	75 00	.....	1,186 03
Shelburne post office, etc	117 30	.....	602 11	457 00	308 13	.....	.....	1,484 54
Springhill post office, etc.	123 25	.....	579 22	378 50	247 00	30 00	.....	1,357 97
Stellarton post office, etc	995 89	275 00	.....	.....	.....	.....	.....	6,344 05
Sydney "Post" building (Marine and Fisheries) .....	.....	540 00	.....	.....	.....	.....	.....	540 00
Sydney post office, etc.	757 94	.....	802 95	479 58	691 56	.....	.....	2,732 03
Sydney Mines post office, etc.	1,519 87	.....	485 97	377 25	438 41	30 00	.....	2,851 50
Tranton post office	331 23	616 13	.....	.....	496 77	32 00	.....	997 36
Truro post office	746 61	.....	524 63	690 00	.....	.....	.....	2,490 01
Truro public building (new) .....	.....	.....	.....	.....	.....	21 00	.....	230 80
Westville post office	524 73	100 00	536 18	322 30	204 02	.....	.....	1,608 23
Weymouth post office .....	.....	.....	.....	.....	.....	50 00	.....	100 00
Windsor post office, etc.	144 20	.....	588 87	424 43	356 62	.....	.....	1,564 12
Wolfville post office	573 05	.....	653 79	473 25	262 55	57 00	.....	2,019 64
Yarmouth post office, etc	590 81	.....	614 17	623 05	653 74	72 00	.....	2,553 80
Minor offices throughout the province	1,367 82	.....	.....	.....	.....	.....	.....	1,767 82
Total, Nova Scotia	25,827 98	14,336 16	33,645 75	22,018 01	17,258 56	2,554 32	875 58	129,178 84
Prince Edward Island.								
Charlottetown experimental farm .....	.....	.....	.....	427 61	102 65	.....	.....	812 12
" "Cameron Block" (Insp. of dredges)	11 93	65 63	.....	.....	3 15	.....	.....	80 71
" custom house, etc.	428 82	70 00	921 42	857 03	226 63	34 00	.....	2,537 90
" Canada food board .....	.....	27 50	.....	.....	.....	.....	.....	27 50
" immigration office .....	.....	174 96	.....	.....	1 25	.....	.....	176 21
" post office, etc.	982 27	.....	2,774 51	1,678 97	1,752 87	225 00	.....	10,885 07
" Public Works office (clerk of works res.) .....	.....	24 00	.....	.....	.....	.....	.....	24 00
Georgetown post office, etc.	133 21	.....	129 36	580 78	29 50	.....	.....	872 85
Montague post office, etc.	161 27	.....	266 96	14 00	93 28	.....	.....	535 51
Souris post office, etc.	130 52	.....	504 70	546 78	147 00	.....	.....	1,328 00
Summerside post office, etc.	158 77	.....	731 45	654 29	592 86	45 00	.....	2,182 37
Tignish post office	960 20	1 00	755 01	722 28	127 86	8 75	.....	2,575 10
Minor offices throughout the province	155 80	5 50	.....	.....	.....	.....	.....	161 30
Total, Prince Edward Island	3,122 79	368 59	6,083 41	5,480 74	3,077 05	312 75	22,198 64

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Woodstock post office, etc.....	582 87	585 82	621 95	367 88	34 00	2,192 52
Minor offices throughout the province.....	950 46	4 19	954 65
Total, New Brunswick	9,956 55	729 76	29,340 27	25,632 50	8,931 47	6,350 65	1,153 43	87,500 99
Quebec.								
Acton Vale post office.....	17 84	.....	512 40	244 07	145 25	28 00	.....	947 56
Arthabaska post office.....	109 45	.....	585 46	398 13	173 12	100 00	.....	1,306 16
Armstrong, customs and immigration office	17 40	.....	.....	47 50	.....	.....	.....	64 90
Asbestos post office.....	.....	200 00	.....	.....	.....	62 25	.....	200 00
Aylmer post office	49 73	.....	139 69	382 50	214 22	.....	.....	848 39
Beauharnois post office.....	214 79	295 42	3 95	142 59	56 31	.....	.....	713 06
Berthierville post office.....	24 43	.....	107 45	184 25	49 63	.....	.....	365 76
Black Lake post office .....	.....	150 00	.....	.....	.....	.....	.....	150 00
Brownsburg post office.....	.....	99 96	.....	.....	.....	.....	.....	99 96
Buckingham post office	74 36	.....	218 32	312 33	75 65	37 20	.....	717 86
Cacouna post office.....	.....	50 00	.....	.....	.....	.....	.....	50 00
Cap Rouge experimental farm.....	.....	.....	.....	609 05	.....	.....	.....	6,449 87
Chicoutimi post office, etc.....	166 77	105 00	685 29	184 34	711 07	300 00	.....	2,452 47
Coaticook post office, etc.....	207 43	.....	559 96	411 88	272 37	25 00	.....	1,176 64
Compton post office.....	5 25	110 00	.....	.....	.....	.....	.....	115 25
Cookshire post office.....	19 09	.....	524 71	252 25	130 12	20 00	.....	946 17
Drummondville post office, etc	461 10	.....	718 71	270 40	146 69	75 00	.....	1,671 90
Dundee custom house	197 33	.....	20 79	177 60	63 00	.....	.....	458 72
East Angus post office.....	276 23	.....	619 66	351 23	299 20	.....	.....	1,546 32
Farnham experimental farm.....	.....	.....	.....	.....	.....	.....	.....	1,046 95
" post office.....	56 39	.....	315 91	66 00	67 95	20 00	.....	722 61
Fraserville post office, etc.....	234 85	.....	539 58	392 66	141 18	200 00	.....	1,508 27
Grand Mere post office.....	519 75	.....	536 27	377 25	200 22	150 00	.....	1,783 49
Grand Mere public building.....	.....	.....	.....	.....	.....	.....	.....	28 20
Grosse Isle quarantine station, improvements and repairs.....	14,975 71	.....	.....	.....	.....	.....	.....	15,124 88
Grosse Isle quarantine station, new buildings.....	.....	.....	.....	.....	.....	.....	.....	5,354 75
Hull post office.....	1,308 46	675 00	156 00	395 00	176 72	357 46	.....	2,393 64
Huntingdon post office .....	.....	.....	.....	.....	.....	.....	.....	675 00
Iberville post office.....	11 50	.....	505 67	109 98	28 52	38 00	.....	693 67
Joliette post office, etc.....	899 93	212 67	728 72	548 16	252 06	110 00	.....	3,038 87
Joliette, weights and measures office, temporary .....	.....	.....	.....	.....	.....	.....	.....	212 67
Jonquières post office.....	51 55	.....	532 70	320 00	100 07	21 12	.....	1,025 44
Knowlton post office, etc	388 26	.....	196 36	399 76	102 24	21 00	.....	1,107 62
Lachine post office	22 38	.....	104 36	251 00	161 85	52 06	.....	591 65
Lachute post office.....	104 23	.....	557 60	239 00	447 96	37 50	.....	1,446 29
Lacolle immigration office	34 00	96 00	.....	36 60	12 00	.....	.....	178 60
Laprairie post office	65 70	.....	183 48	249 84	61 81	45 00	.....	606 23
L'Assomption post office	45 24	.....	325 40	226 57	113 01	65 00	.....	785 22
Lennoxville experimental farm.....	.....	.....	17 25	474 42	76 85	.....	.....	6,579 42
Levis post office	112 80	843 94	816 45	221 05	138 50	2,163 61
Longueuil post office	49 55	501 08	206 67	69 20	61 40	887 90

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	354 81	2,135 84	910 00	4 40	71	55 59	38 80	3,500 15
" " Mount Royal East			1,750 00					1,750 00
" " Ste. Cunégonde				26 20	313 26	177 73		852 06
" " St. Henri	251 57						83 30	224 25
" " Windsor station mail room	11 25		213 00					
" " "Shaughnessey building" (Marine, etc.)								
" " generally	127 18		12,014 40			76 40	263 84	12,481 82
Mont Joli post office	676 58			135,855 95	117 96	2,953 78		139,604 27
Murray Bay post office, etc.	11 35		240 00	6 65	79 90	25 51		363 41
Nicolet post office, etc.	283 50	14 90		624 41	685 17	270 99		1,894 83
Noumtingue immigration building	360 85			583 11	288 93	135 69		1,389 38
Peribonka immigration building	58 67		1 00	300 00	117 00	15 00		491 67
Pierreville post office	13 65			199 92	90 00	5 15		308 72
Plessisville post office	189 60			177 52	171 33	47 11		585 36
Quebec archives office	7 85			146 59	167 25	280 20		638 84
" " citadel (Gov. Genl's quarters)			393 00	390 00	23 00	6 30		812 30
" " custom house, etc.	2,764 80		34 00	681 35	1,050 17	331 00		4,861 32
" " drill hall	1,798 72		98 25	4,164 19	2,660 76	748 05		10,969 97
" " examining warehouse		15 85						15 85
" " immigration office (101, St. Jean)	249 32			3,400 24	1,645 62	216 85		6,862 03
" " immigration buildings (Louise embankment)	497 24							495 83
" " immigration detention hospital (Savard Park)	131 50				423 20	1,047 69	1,376 25	3,344 38
" " immigration detention hospital (Medical supdt's res.)					1,123 31	217 18		1,471 99
" " marine agency (King's wharf)	5 75		600 00					600 00
" " observatory	190 63				693 79			1,449 54
" " post office, etc. (Upper town)	948 96	63,488 58	268 11	12,022 82	5,152 46	48 49		289 12
" " postal station "B"	54 48		3,000 00			780 96	775 00	84,246 89
" " Candiac post office			95 83			72 71		3,127 19
" " Faubourg St. Jean post office	49 80			7 50				95 83
" " St. Roch post office	63 52		27 00	1,055 74	538 15	265 60	50 00	932 30
Quebec—St. Sauveur post office	434 26			473 53	334 96	165 59		2,400 01
Quebec post office case examiner's office			240 00					1,602 09
Quebec seeds office			250 00					240 00
Quebec war tax office	13 25		320 83	54 00				250 00
" " weights and measures office						6 77		394 85
" " generally	103 02			5,488 13	171 08	5 62		176 70
Richmond post office, &c.	292 55			590 10	496 31	357 25		5,948 40
Rigaud post office, &c.	82 50			330 05	332 02	318 94	25 00	1,722 90
Rimouski post office, &c.	28 33			371 10	591 26	180 48		925 05
Roberval immigration building	11 30		25 00	199 92	240 00	108 30		1,398 99
" " post office, &c.	81 86	2,870 08		579 12	452 50	17 50		512 47
Rock Island post office, &c.	30 64			575 01	86 20	388 50		4,384 56
Ste. Agathe des Monts, post office	202 39			545 66	355 30	223 44		943 80
Ste. Anne de Bellevue, post office			250 00			314 76		1,418 11
						21 00	26 60	297 60

† This sum indicates the total wages of caretakers, firemen, elevator men and cleaners for all buildings in Montreal. Owing to system of organization of these staffs, it has not been practicable to assign proper share to each building.

Amounts expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Construction and Repairs.	Reprints and Publications.	Rent.	Stationery and Supplies for Clerks.	Heating.	Lighting.	Water.	Power.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Public Buildings—Continued.									
Ag. Bldg., Parliament Bldg., experimental form.	4,534 19				235 60	49 41	22 50		1,819 30
Ag. Bldg., post office.		65 60	300 00			44 99			433 39
Ag. Bldg., N. B. Bldg., post office.			1 8 75						158 75
Ag. Bldg., N. B. Bldg., post office.		83 57			518 34	116 41			1,274 48
Ag. Bldg., N. B. Bldg., post office.			150 00						150 00
Ag. Bldg., N. B. Bldg., post office.					267 24	20 32			874 07
Ag. Bldg., N. B. Bldg., post office.		148 29			365 42	179 16			1,411 75
Ag. Bldg., N. B. Bldg., post office.		258 34			180 00	69 75			555 86
Ag. Bldg., N. B. Bldg., post office.		193 95			406 54	194 94			1,200 27
Ag. Bldg., N. B. Bldg., post office.			25 00						25 00
Ag. Bldg., N. B. Bldg., post office.		58 90			420 07	91 35			1,158 73
Ag. Bldg., N. B. Bldg., post office.		160 60	200 00			19 41			398 01
Ag. Bldg., N. B. Bldg., post office.		51 46			310 15	101 86			1,056 73
Ag. Bldg., N. B. Bldg., post office.	61 00								61 00
Ag. Bldg., N. B. Bldg., post office.			135 00						135 00
Ag. Bldg., N. B. Bldg., post office.		107 87			414 00	912 12			1,361 47
Ag. Bldg., N. B. Bldg., post office.	926 61	73 29	200 00		110 25	23 31			1,333 46
Ag. Bldg., N. B. Bldg., post office.			130 21						130 21
Ag. Bldg., N. B. Bldg., post office.		105 90			652 50	139 45	22 92		1,476 03
Ag. Bldg., N. B. Bldg., post office.		27 48			351 08	309 85			1,188 57
Ag. Bldg., N. B. Bldg., post office.		703 35	67 00		952 84	492 27	51 98		3,091 53
Ag. Bldg., N. B. Bldg., post office.		149 86	906 00			18 36			1,134 22
Ag. Bldg., N. B. Bldg., post office.			1,400 00						1,400 00
Ag. Bldg., N. B. Bldg., post office.		57 00			755 88	133 72	250 00		2,580 22
Ag. Bldg., N. B. Bldg., post office.					360 77				360 77
Ag. Bldg., N. B. Bldg., post office.		130 73	75 25			6 44			212 45
Ag. Bldg., N. B. Bldg., post office.		254 10			271 72	105 86	17 00		1,000 72
Ag. Bldg., N. B. Bldg., post office.		293 32			447 92	297 15	45 00		1,262 26
Ag. Bldg., N. B. Bldg., post office.			125 00						125 00
Ag. Bldg., N. B. Bldg., post office.		256 75			934 08	304 81	50 37		2,035 19
Ag. Bldg., N. B. Bldg., post office.	97,626 26								97,626 26
Ag. Bldg., N. B. Bldg., post office.		8 10	240 00						240 00
Ag. Bldg., N. B. Bldg., post office.		1,305 83	420 00			15 54			573 61
Ag. Bldg., N. B. Bldg., post office.		86 30			731 05	195 30	90 00		3,112 94
Ag. Bldg., N. B. Bldg., post office.			375 60						375 60

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Victoriaville, post office, &c.....	130 99	336 93	476 09	149 47	112 50	1,205 98
Minor offices throughout the province.....	8,658 42		57 75	78 15		8,794 32
Total, Quebec.....	53,223 19	201,087 16	79,258 73	39,323 35	20,164 34	689,941 68

Name of Work.	Construction and Improvements.	Repairs and Furniture.	Sundry Maintenance.	Rents.	Salaries and Supplies.	Heating.	Lighting.	Power.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
OTTAWA BUILDINGS.									
Departmental buildings—									
† “Connaught building” (formerly Custom House)	24,991 95								24,991 95
Eastern block, new fire proof roof	3,643 01								3,643 01
Parliament buildings, restoration.....	1,497,278 91								1,497,278 91
Parliament and departmental bldgs generally—									
(Library of Parliament, East, West, Langevin and Connaught blocks)					51,523 40	44,496 58	16,991 67		113,011 65
Fire escapes.....	3,555 00								3,555 00
Grounds, including Major's Hill Park.....			13,415 42		840 00	1,395 00	396 19		16,046 61
Macerating plant, Currency Br. Dept. Finance.....	8,171 35								8,171 35
Power for elevators									28,742 25
Re-wiring of buildings	20,014 16								20,014 16
Repairs and furniture.....	462,371 72								462,371 72
Steel Fittings.....	101,035 61								101,035 61
Telephone service.....			54,000 58						54,000 58
Sites for new departmental buildings—									
Acquirement of properties, Wellington street west	6,157 30								6,157 30
Maintenance of acquired properties									
Sussex street		711 36			840 00	664 62	46 06		2,962 04
Wellington street east.....					420 00	933 01	237 22		1,590 23
“ “ west		11,570 32			5,699 44	16,648 73	2,833 87		36,752 36
Archives building					1,740 00	1,339 11	201 61		3,280 72
Astronomical observatory			3,742 23			967 71	772 20		5,482 14
Biological laboratory						755 16	165 87		924 03
Experimental Farm.....	34,480 57					6,967 36	733 69		42,181 62
Fisheries museum.....						463 75	164 99		628 74
Fuel testing building						4,448 62	651 53		5,100 15
Geodetic building						721 79	17 94		739 73
Mines building (Sussex street)					3,300 00	3,339 40	1,944 38		8,583 78
National art gallery.....	9,749 05		8,122 10						17,871 15

Accounts expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918. *Continued.*

Name of work	Construction and improvements		Repairs and furniture		Sundry maintenance		Rents		Salaries and supplies for caretakers		Heating		Lighting		Power		Total	
	%	cts.	%	cts.	%	cts.	%	cts.	%	cts.	%	cts.	%	cts.	%	cts.	%	cts.
OTTAWA BUILDINGS, ETC.																		
Pavements																		
Sussex street	20,985	50																20,985 50
Wellington street	22,012	95							6,920	00	2,900	70	1,442	26				22,012 95
Post office											15,979	05	5,348	43				11,262 96
Printing bureau																		21,327 48
Freight elevators	4,014	48																4,014 48
Public Works (Work-shops)									1,920	00	2,484	49		550	30			4,954 79
Railway Hall	2,464	56	47,499	87														49,964 43
Grounds,																		
Snow,																		
Fuel and light,																		
Wash-house,																		
Royal hunt	1,019	32			25,615	06												25,615 06
Supplies court									840	00	5,971	79		182	50			8,013 61
Victoria island shipyard									1,420	00	1,967	91		198	75			3,586 66
Victoria memorial museum									420	00				227	22			647 22
Sundry rented buildings									13,373	50	13,493	00		4,690	54			31,557 04
									36,909	94	25,058	31		20,426	04			609,544 43
Total, Ottawa buildings	1,759,573	72	522,153	27	104,895	39	527,150	14	126,163	28	150,996	09	58,223	26	28,742	25	3,277,900	40

* Salaries, heating, lighting, included in Parliamentary and Departmental buildings.

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Construction and Improvements.	Repairs and Furniture.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Power.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
PUBLIC BUILDINGS.—Continued.									
Ontario.									
Acton post office, etc.		146 64		579 95	148 25	91 84			966 68
Alexandria post office, etc.		28 02		516 92	311 70	222 30	7 50		1,086 44
Almonte post office, etc.		226 74		641 90	107 82	247 66	93 75		1,317 87
Amherstburg post office, etc.		48 19		520 26	269 25	93 94	35 00		966 64
Annprior post office, etc.		763 57		579 51	424 25	594 30	32 00		2,393 63
Athens post office, etc.		318 80		75 79	352 20	105 65			852 41
Aurora post office, etc.		102 09		586 56	369 09	32 62	16 00		1,106 36
Aylmer post office, etc.		419 52		676 38	180 30	226 84	23 90		1,526 94
Barrie post office, etc.		188 76		639 17	509 33	296 36	50 00		1,683 62
Belleville post office, etc.		308 45		692 09	1,001 28	744 92	83 25		2,829 99
Blenheim post office, etc.			206 67						266 67
Bowmanville post office, etc.	61 60	47 70		571 32	237 60	145 40	39 82		1,106 44
Bracebridge post office, etc.		25 25		621 71	250 04	97 52	6 98		1,001 50
Brampton post office, etc.		38 06		558 87	306 00	123 35	48 26		1,074 54
Brantford post office, etc.		989 56		6,377 40	1,557 74	434 82	86 85	361 14	9,807 51
Bridgeburg immigration office		48 69							48 69
" post office, etc.		275 83		382 72	238 00	163 15	20 00		1,079 70
Brighton post office.			100 00						100 00
Brockville post office, etc.		518 10		921 35	585 18	960 07	157 25		3,141 95
Burford post office, etc.		83		523 81		69 40			594 04
Cardinal post office.	3,959 70	253 74	209 25	20 74	152 23	77 37	15 00		4,698 03
Carleton Place post office, etc.		106 54		607 96	302 85	189 50	31 52		1,238 37
Cayuga post office.	2,304 15	18 52		326 75	68 73	74 02	9 00		2,801 17
Chatham post office, etc.	1,343 60	38 95		670 13	239 71	241 97	20 33		2,554 69
Chesley post office, etc.		9 65		613 03	340 05	179 30	25 00		1,167 03
Clinton post office, etc.		96 02		295 57	284 32	130 96	8 94		815 81
Cobalt post office.			1,999 99						1,999 99
Cobourg post office, etc.		100 18		644 05	360 75	254 41	50 75		1,410 14
Collingwood post office, etc.		171 35		1,211 87	1,084 50	367 37	97 90		2,932 99
Cornwall post office, etc.		104 00		916 74	270 45	285 65	75 00		1,651 84
Daseroonto post office, etc.		21 98		602 49	465 00	344 50	39 00		1,412 97
Dresden post office.		13 73		601 90	298 65	170 15	40 15		1,124 58
Dundas post office.		59 50		644 13	470 32	204 74	29 46		1,408 15
Dunnville post office.	42 89								42 89
Durham post office.	3 50								3 50
Eganville post office, etc.		182 46		624 37	113 75	190 48	34 00		1,151 06

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Kingston post office	764 91	775 39	945 21	705 29	114 51	3,305 31
" R. M. C. enlargement of educational block						2,686 26
Kingsville post office	87 46	1,219 52	17 50	13 80	1 13	4 42
Kitchener examining warehouse		50 00				1,339 41
" G. T. Ry. station mail room						50 00
" post office, etc	474 44	621 11	408 51	196 37	32 24	1,732 67
Lakefield post office	41 96	646 54	176 75	311 65		1,176 90
Lansdowne post office		25 00	44 67			69 67
Leamington post office, etc	2 70	524 91	343 00	157 50	24 00	1,052 11
Lindsay post office, etc	33 65	706 90	532 10	302 80	26 10	1,601 55
Listowel post office, etc	100 16	578 91	362 85	156 02	17 59	1,215 47
London custom house, etc	304 70	1,847 68	2,075 24	397 69	103 70	5,567 83
" immigration office	4 00					4 60
" post office, etc	176 65	2,834 01	3,043 30	728 54	138 59	8,344 50
" war tax office	1 00	41 40		11 66		245 48
L'Orignal post office						125 00
Markham post office		650 00	134 66	51 50		836 16
Merrickville post office						200 00
Midland post office, etc	290 38	626 83	35 02	238 50	23 45	1,214 18
Mildmay post office, etc	4 75	69 95	51 99			126 69
Milton post office	7 40	646 74	228 93	100 92	15 67	999 66
Milverton post office, etc	101 95	758 54	255 00	187 45		2,415 94
Mitchell post office	69 38	604 65	2 25	66 35	82 00	824 63
Mount Forest post office	257 30	501 25	382 64	184 57	12 75	1,338 51
Napanee drill hall						841 19
" post office, etc	89 80	678 13	401 14	198 98	72 41	1,440 46
Newmarket post office, etc	7 66	986 75	238 35	74 10	10 62	1,317 48
Niagara Falls post office, etc	165 11	740 89	556 68	156 65	54 97	1,614 33
North Bay post office, etc	1,404 38	943 85	793 32	271 17	36 00	3,462 72
Norwich post office, etc	30	674 03	390 33	135 28	25 00	1,224 94
Orangeville post office, etc	38 95	668 60	184 37	76 35	18 00	986 27
Orillia post office, etc	629 66	717 32	759 12	295 67	23 40	2,437 32
Oshawa post office, etc	214 10	786 58	408 59	137 81	37 16	1,584 24
Owen Sound post office, etc	290 11	705 77	890 03	196 46	50 00	2,132 37
Palmerston post office, etc	36 75	648 63	389 16	175 64		10,233 73
Paris post office	39 75	647 08	351 25	98 32	45 60	1,182 00
Parkhill post office, etc	265 72	242 08	313 35	73 72		894 87
Pembroke post office, etc	338 06	640 48	756 23	344 07	40 00	2,118 84
Perth post office						97 94
Peterboro custom house	23 73	489 28	373 64	97 53	50 00	1,034 18
" post office, etc	255 11	948 15	691 19	294 63	75 00	2,264 08
" weights and measures office		212 50				212 50
Petrolia post office, etc	10 63	522 40	245 40	147 81	47 76	974 00
Pictou post office etc	190 23	540 77	366 00	222 55	51 25	1,340 80
Port Arthur examining warehouse, etc	87 25	5,572 31	2,329 22	344 33	100 15	9,170 94
" immigration building	10 00				2 30	12 30
" post office, etc	86 41	629 34	867 24	308 88	119 79	2,011 66
Port Colborne post office	6 50	549 07	71 80	168 52	20 00	815 89
Port Hope post office, etc	130 05	654 00	406 50	417 75	11 43	1,619 73

Amounts expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Nature of Work	Construction and Improvements	Repairs and Furniture	Rents	Salaries and Supplies for Cartdrivers	Heating	Lighting	Water	Power	Total	
	\$	cts.	\$	cts.	\$	cts.	\$	cts.	\$	cts.
Public Buildings—Continued										
Parliamentary Buildings, etc.										
Library Buildings, etc.			700 00	656 22	557 50	91 50			1,356 05	
Marine Buildings, etc.			600 00		101 50				700 00	
Municipal Buildings, etc.			113 00						711 50	
Municipal Buildings, etc.				881 61	1,031 53	301 20			163 75	
Municipal Buildings, etc.	975 40								2,224 25	
Municipal Buildings, etc.									975 40	
Public Buildings—Continued										
Public Buildings, etc.				887 71	558 50	150 08	96 06		1,793 74	
Public Buildings, etc.				958 50	539 70	95 05	19 00		1,636 17	
Public Buildings, etc.			384 34	45 00		55 60			505 84	
Public Buildings, etc.				634 07	741 58	49 84	50 25		1,495 44	
Public Buildings, etc.				906 10	775 46	460 82	25 25		2,322 68	
Public Buildings, etc.			70 00						70 00	
Public Buildings, etc.			247 50						247 50	
Public Buildings, etc.			180 00	861 92	564 98	61 07	17 91		2,028 24	
Public Buildings, etc.				793 05	641 07	192 92	73 70		1,905 34	
Public Buildings, etc.				806 50	828 10	71 66	30 65		2,005 75	
Public Buildings, etc.				534 75	272 38	45 92			871 90	
Public Buildings, etc.			600 00						600 00	
Public Buildings, etc.			250 00	827 56	662 12				303 15	
Public Buildings, etc.					662 12	18 15			1,554 87	
Public Buildings, etc.			2,170 00			25 84			2,203 81	
Public Buildings, etc.										
Public Buildings, etc.			5,255 00	7,841 90	1,823 46	61 69	171 77	130 61	5,416 41	
Public Buildings, etc.	82 74					712 31			12,524 37	
Public Buildings, etc.				8,473 36	7,001 02	255 28	447 03	150 57	82 74	
Public Buildings, etc.					58 50				17,702 88	
Public Buildings, etc.									58 80	
Public Buildings, etc.									13 25	
Public Buildings, etc.			57 51	265 00	7,549 85	1,201 99	1,003 78	253 82	14,919 07	
Public Buildings, etc.										
Public Buildings, etc.			1,873 30			11 58			2,449 79	
Public Buildings, etc.			180 00	14,624 49	7,335 30	3,443 89	908 42		32,843 05	
Public Buildings, etc.			1,745 73	19 97		10 20			2,376 78	

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	831 60	41 60	11,235 64	948 34		177 69			13,234 87
" " "Blow building" (Irrigation).....									
" "Board of Trade bldg." (Weights and measures office).....		110 65	270 93			8 75			390 33
" "Burns building" (geol. survey).....			225 00						225 00
" "Cadogan building" (Inland Revenue).....			600 00						600 00
" "Canada Life building" (P.O.D. and I.R.).....		256 70	8,205 00			44 45			8,506 15
" "Costello building" (weights and measures).....			90 21			70			90 91
" "Drill hall.....	204,409 62								204,409 62
" "examining warehouse.....	4,080 97	1,513 24		5,405 56	2,681 26	309 10	363 23	1,340 84	15,694 20
" "Herald building" (Railway Commission).....			1,260 00			13 01			1,273 01
" "immigration building.....		10 65	10 00						20 65
" "Leeson-Lineham building" (Interior Dept.).....		91 30	480 00						571 30
" "Post office (new).....	8 12								8 12
" "Post office (temporary).....		1,443 36	15,290 35	453 95	896 54	1,623 27	90 58		19,792 05
" "seeds office.....			1,500 00			3 40			1,503 40
" "Thomas building" (Interior Dept.).....			3,725 40			10 80			3,736 20
" "generally.....						370 52			370 52
Castor immigration building.....					58 10				58 10
Coutts immigration building.....	2,043 00		1 00						2,044 00
Edmonton examining warehouse.....		149 82	4,200 00						4,200 00
" "immigration building.....			1 00		524 75	56 70	64 24		796 51
" "lands office.....	620 84		6,600 00	332 65		268 57			7,822 06
" "McLeod building" (National service offices).....		214 66	300 00			1 40			516 06
" "post office, etc.....		1,609 66	207 50	8,380 20	1,615 70	1,870 89	107 33	314 80	14,106 08
" "weights and measures office.....		2 45							2 45
Edmonton South (Strathcona) immigration bldg. post office.....		1,403 37		1,181 15	658 64	5 74	27 43		3,527 31
Edson immigration building.....					186 90				186 90
Entwistle immigration building.....		34 07	3 00		108 85				145 92
Falher immigration building.....	118 62		550 00		112 50				783 37
Grande Prairie immigration building.....	4,511 96	60 90	455 00		118 75				5,146 61
" "lands office.....	160 50	7 20	240 00						407 70
Ground immigration building.....			225 00						225 00
High River, lands office.....		75 45	540 00	29 70	118 80				763 95
Lacombe experimental farm.....	981 36				1,204 01	275 04	33 50		2,493 91
Lethbridge experimental farm.....	1,754 64				301 10	135 60			2,191 34
" "immigration building.....		84 98			189 00	25 75	100 00		399 73
" "lands office, etc.....		108 10			233 80	74 30	75 00		1,141 20
" "post office, etc.....	4,480 77	146 18		5,205 95	2,287 17	697 08	140 70	417 15	13,375 00
Macleod custom house.....		130 22			120 05	48 99	31 00		330 26
Medicine Hat immigration building.....			250 00	36 00		14 71			300 71
" "post office, etc.....	814 91	927 50		1,851 30	218 95	719 64	132 21		4,664 51
Peace River Crossing lands office.....			720 00		60 00				780 00
" "post office.....		53 50	235 00		170 00				458 50
" "immigration building.....	4,717 25	242 85			227 40				5,187 50

Amounts expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Nature of Work	Construction and Improvements.	Repairs and Furniture.	Rents.	Salaries and Supplies for Caretakers.	Heating.	Lighting.	Water.	Power.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Public Buildings—Continued									
Universities included									
Pacific Creek University college			360 00		388 50	63 45	29 00		360 00
Red Deer post office, etc.	640 00	133 67		870 95	6 00				2,125 57
Rexby Museum building, etc.		181 70	300 00		149 00	2 25			487 70
Saskatchewan University building	4,380 95	9 75			196 00				4,580 95
University of Saskatchewan building			2 08		83 00				198 08
York University building		37 85	1 00		68 52				84 00
Waskesville institution building	1,063 80	60 81		789 50	450 50	219 69	48 27		106 37
Waskesville post office	1,156 52				328 75				3,232 57
Municipal buildings at the Province									1,485 27
Total Alberta	257,384 43	9,348 49	58,114 11	26,700 15	14,227 20	7,548 87	1,282 84	2,072 79	356,678 88
British Columbia									
Agassiz experimental farm	1,460 86				953 37				2,414 23
Alberta post office			80 00						80 00
Alberta post office, etc.		426 36	25 00	371 15	299 88	276 99	53 30		1,452 68
Alberta post office	3,134 84								3,134 84
Alma post office, etc.		22 25	15 00	152 25	127 50	108 00			410 00
Blaine, B. C. post office building		2 74							15 00
Chetwynd post office			30 00						2 74
Chetwynd post office, etc.		47 80		633 35	116 93	10 80	12 00		169 73
Chetwynd post office, etc.		12 00		301 21	302 57	75 97	36 00		1,095 69
Chetwynd post office, etc.		67 65		989 70	99 50	39 75			452 46
Chetwynd post office, etc.		125 00		683 07	547 83	412 11	79 22		2,096 51
Chetwynd post office building		143 97			159 56	194 16	60 00		1,221 79
Chetwynd post office, etc.		23 10		953 50	24 00	6 20			174 17
Chetwynd post office, etc.		116 54		910 97	443 18	259 19	30 00		1,708 97
Grand Forks post office, etc.		232 93		908 84	333 00	149 75	49 05		1,559 31
Grand Forks post office, etc.		44 35		730 10	579 45	189 40	60 00		1,970 62
Grand Forks post office, etc.					335 10	263 72	72 00		1,445 27
Grand Forks post office, etc.	653 06								653 06
Inverness experimental farm		210 74	3,228 05	413 95	324 46	119 09			3,438 79
Kamloops post office		146 95		387 17	15 00	274 77			1,001 45
Kamloops post office building	521 71		700 00				26 00		1,924 65

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	26 25	628 70	91 00	49 06	24 00	819 01
	343 17	1,577 75	404 37	583 33	36 00	2,944 62
Ladysmith post office.....						654 00
Nanaimo post office, etc.....						3,186 81
Nelson engineer's office (D. P. W.).....						1,642 41
Nelson post office, etc.....						5,597 70
New Westminster Indian and fisheries bldg.						1,394 12
" " post office, etc.....						195 55
North Vancouver post office.....						1,160 36
Pacific Highway immigration office.....						4 00
Port Alberni post office, etc.....						600 00
Prince George post office.....						8,624 46
Prince Rupert examining warehouse.....						463 33
" " "Federal Block" (post office, etc.).....						251 34
" " Fisheries office.....						168 45
" " immigration building.....						
" " post office (site).....						
Revelstoke "Can. Bank of Commerce bldg."						
(Int. Dept.).....						
" " post office.....						
Roseland post office, etc.....						
Salmon Arm post office.....						
Sicamous post office.....						
Sidney experimental farm.....						
Squamish post office.....						
Summerland experimental farm.....						
Union Bay post office.....						
Vancouver dredging office (D. P. W.).....						
" " "Empire bldg." (Mar. & Fish. D.).....						
" " examining warehouse.....						
" " fisheries office, 519 Pender St.....						
" " fumigating plant.....						
" " immigration detention building.....						
" " "Molson's Bank" (War Tax office).....						
" " new post office, etc.....						
" " old post office (Assay office).....						
" " postal station "A" (C. P. R.).....						
" " "B".....						
" " "C" (new).....						
" " "C".....						
" " "Vancover bldg." (Military Service).....						
" " "Winch bldg." (War tax office).....						
Vernon post office, etc.....						
Victoria "Ames-Holden bldg." (examining ware-						
house).....						
" " astronomical observatory (Little Sa-						
anich Mn).....						
" " Dominion bldgs. (Taxes re local im-						
provements).....						
" " fumigating plant (C. P. Ry. wharf).....						
" " immigration building.....						
" " meteorological observatory.....						

Accounts expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work	Construction and Improvements.	Repairs and Furniture.	Rents.	Salaries and Supplies for Carpenters.	Heating.	Lighting.	Water.	Power.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Public Buildings—Continued.									
Yukon Territory—Continued.									
Various public buildings, including the new building at Dawson, and the new building at Whitehorse.	2,046 38	500 90	201 00	12,828 35	2,378 40	1,352 51	92 51	887 25	20,206 30
Water supply for the new building at Dawson.	498 00	960 60	934 60	577 56	103 32	21 22	3,095 30
Water supply for the new building at Whitehorse.	8,088 42	430 47	7 50	365 40	110 08	82 80	78 12	9,172 39
Water supply for the new building at Whitehorse.	263 75	8,948 96	263 75
Water supply for the new building at Whitehorse.	3,702 24	600 00	102 00	10 00	13,251 20
Total, Public Buildings.	38,334 39	16,421 84	30,471 26	63,514 53	28,587 25	13,873 91	1,861 90	3,234 15	196,329 23
Name of Work	Construction and Improvements.	Repair.	Staff and Maintenance.	Totals.					
	\$ cts.	\$ cts.	\$ cts.	\$ cts.					
Public Buildings.									
Yukon Territory.									
Housing, heating, water, etc., for all public buildings in Yukon territory.	40,006 17	40,006 17					
Total, Yukon territory.	40,006 17	40,006 17					
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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Continued.*

Name of Work.	Dredging.	Construc- tion and Improve- ments.	Repairs.	Staff and Main- tenance.	Total.
HARBOURS AND RIVERS.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
<i>Nova Scotia—</i>					
Amherst Point, wharf.			700 52		700 52
Anderson's Cove, breakwater.			207 00		207 00
Annapolis Royal, pier.			1,825 99		1,825 99
Antigonish Landing, wharf.		200 09			200 09
Arichat wharf.			597 75		597 75
Arisaig, breakwater.			54 38		54 38
" wharf.			123 75		123 75
Baddeck, wharf.			104 87		104 87
Bailey's Brook, protection piers.			598 47		598 47
Baker's Point (East Jeddore) wharf.			692 34		692 34
Bass River, wharf.			933 78		933 78
Baxter's harbour, breakwater.			471 20		471 20
Bear Cove (Halifax Co.) boat skid.			190 94		190 94
Bear River, repairs to warping pier.	25 00		1,319 69		1,344 69
Beaver River, north breakwater.		399 70			399 70
Bluff Head, breakwater.		400 03			400 03
Boularderie Centre, wharf.			624 96		624 96
Broad Cove Marsh, wharf.			111 08		111 08
Canning, wharf.			2,340 88		2,340 88
Cape St. Mary, breakwater.			2,956 55		2,956 55
Carr's Brook, breakwater-wharf.			878 73		878 73
Chance Harbour, breakwater.			54 60		54 60
Chebogue Beach, protection.			149 90		149 90
Chester Basin (Lunenburg Co.).	2,322 75				2,322 75
Chipman Brook, breakwater.			257 46		257 46
Clementsport.	2,110 70				2,110 70
Comeau's Cove, breakwater.			141 62		141 62
Cow Bay (Port Morien), breakwater.			1,559 82		1,559 82
Criblin's Point, wharf.			1,524 50		1,524 50
D'Escousse, wharf.			74 92		74 92
Digby, pier renewals.			1,997 07		1,997 07
Eagle Head, breakwater.			1,645 02		1,645 02
East Ferry, breakwater.			20 00		20 00
East Pubnico, wharf.			398 24		398 24
East River (Picton Co.) improvements.		140,187 54			140,187 54
East Ship Harbour, wharf.			117 54		117 54
Ecum Secum (Halifax Co.) wharf.		127 81			127 81
Feltzen South, breakwater-wharf.			261 07		261 07
Finlay Point, wharf.			100 00		100 00
Fox Island, breakwater approach.			2,700 07		2,700 07
Freeport, wharf.			68 53		68 53
Friar's Head, breakwater.			1,169 27		1,169 27
Fruids Point wharf.		569 23			569 23
Georgeville, wharf.			76 75		76 75
Glace Bay, protection works.			243 36		243 36
Grand Etang, wharf.			200 27		200 27
Grand Narrows, wharf.			104 75		104 75
Half Island Cove, breakwater.			600 51		600 51
Halifax graving dock.		18,545 82			18,545 82
Hampton, breakwater reconstruction.		1,332 06			1,332 06
Harbourville, breakwater (bed for ves- sels).		151 90			151 90
Head of Chezzetcook, wharf.		24 25			24 25
Hunts Point, breakwater.			149 47		149 47
Inverness, harbour improvements.	1,500 00	562 80			2,062 80
Iona, wharf.			396 90		396 90
Jamesville, breakwater.			1,354 05		1,354 05
Jones Harbour, breakwater-wharf.			779 16		779 16
Kelly's Cove, breakwater.			392 35		392 35
Kraut Point, wharf.		20 00			20 00
L'Ardoise, breakwater.			466 19		466 19
La Have river, Reinhardt.	442 90				442 90
" " East Middle.	708 59				708 59

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
HARBOURS AND RIVERS.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
North Sector—Continued.					
Lingan Beach, protection works.			616 22		616 22
Litchfield, breakwater.			142 70		142 70
Little Harbour (Pictou Co.), wharf.		892 75			892 75
Liverpool channel \$27,597.48					
Less, work done for private firms 545.32					
	27,052 16				27,052 16
Livingstone's Cove, wharf.			155 22		155 22
Lower Kingsburg, skidway and breakwater		285 70			285 70
Lunenburg. 39 39					39 39
Madegnant cove, wharf.			26 00		26 00
Marble Mountain, wharf			319 03		319 03
Margaree, breakwater			936 08		936 08
Margaree harbour, improvements. 112 08		4,789 38			4,901 46
McKay's point (Judique), breakwater.			591 62		591 62
McNair's cove, breakwater			899 97		899 97
Meat cove, boat harbour.			50 01		50 01
Middle river (lower) shear dams.			149 96		149 96
Middle river (upper), shear dams.			199 63		199 63
Mill creek, wharf		299 41			299 41
Morrisson's landing, breastworks			199 98		199 98
Mosher's bay, breakwater.			335 95		335 95
New Brunswick, wharf.			1,619 70		1,619 70
New Harbour, breakwater			584 29		584 29
New Iron, wharf			398 99		398 99
North-east point, wharf			40 08		40 08
North river (St. Ann's), wharf			599 41		599 41
North Ingomish, wharf			366 30		366 30
North Sydney, ballast wharf.			1,317 49		1,317 49
Nyana, wharf.			79 83		79 83
Ogden's pond, protection work.		37 04			37 04
Owl's head, wharf			128 57		128 57
Park's creek (Lunenburg co.) 970 20					970 20
Parish's wharf			2,016 02		2,016 02
Pictou, Abercrombie channel 34,768 38					34,768 38
Pipersville, wharf			111 60		111 60
Port Dufferin, wharf			49 83		49 83
Porter's lake, outlet			104 64		104 64
Port George (Annapolis co.) breakwater			1,477 47		1,477 47
Port Hastings, wharf			142 90		142 90
Port Harford, breakwater			289 58		289 58
Port Head, wharf		64 75			64 75
Port George cove, breakwater			812 79		812 79
Ross ferry wharf			96 14		96 14
Sandy point, breakwater			1,925 62		1,925 62
South Cove, breakwater.			1,300 00		1,300 00
South Cove, breakwater			371 07		371 07
St. John's wharf. 2,445 00					2,445 00
St. John's wharf, breakwater		4,676 17			4,676 17
Shubenacadie, warping piers, etc. 23,000 00					23,000 00
St. John's wharf, breakwater			299 33		299 33
St. John's wharf, breakwater			264 81		264 81
St. John's wharf, breakwater			44 75		44 75
St. John's wharf, breakwater					
St. John's wharf, breakwater		30 57			30 57
St. John's wharf, breakwater			605 04		605 04
St. John's wharf, breakwater 8,794 84					8,794 84
St. John's wharf, breakwater		174 80			174 80
Swim's point, wharf.			656 09		656 09
Swim's point, wharf, breakwater			180 00		180 00

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Continued.*

Name of Work.	Dredging.	Construc- tion and Improve- ments.	Repairs.	Staff and Maintenance	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS.					
<i>Nova Scotia—Concluded.</i>					
Three Fathom harbour, beach, protection works, etc.			810 18		810 18
Tiverton, breakwater			1,416 28		1,416 28
Trout cove, breakwater			1,495 70		1,495 70
Vogler's cove, wharf			125 02		125 02
West Arichat, wharf			566 48		566 48
West Chezzetcook, breakwater			199 65		199 65
West Chezzetcook, wharf			198 81		198 81
West Dublin	1,282 54				1,282 54
Westport, wharf			208 71		208 71
West Pubnico (lower), wharf			199 49		199 49
Weymouth, wharf			150 65		150 65
White point, breakwater		104 13			104 13
Whycocomagh, harbour			254 12		254 12
Windsor harbour, "Goudge" wharf			449 82		449 82
Wolfville, wharf, (shed)			200 00		200 00
Yarmouth harbour, improvements	4,596 78	500 12	44 25		5,150 15
Young's landing, wharf			74 92		74 92
Generally	7,999 05			2,932 47	10,931 52
Totals, Nova Scotia	95,170 45	197,385 05	58,665 06	2,932 47	354,153 03
<i>Prince Edward Island—</i>					
Alberton	1,909 22				1,909 22
Annandale, wharf			172 62		172 62
Bridgetown, (King's Co.)	10,598 39				10,598 39
Cardigan South, wharf			20 00		20 00
Georgetown, (Queen's wharf)			40 00		40 00
Grand river, (McPherson's wharf)	1,314 54				1,314 54
Hickey's wharf			29 75		29 75
Hurd's point, wharf			295 00		295 00
Little Sands, wharf		1,101 41			1,101 41
Miminigash, breakwater, etc.			2,134 70		2,134 70
McPherson's cove, pier			40 00		40 00
Mink river, wharf			118 28		118 28
Mount Stewart, wharf	8,919 96		16 60		8,936 56
Murray harbour, south wharf			8 69		8 69
Panmure island, wharf			40 00		40 00
Pinette, pier			73 45		73 45
Port Selkirk, pier			643 88		643 88
Rocky point, wharf		115 11			115 11
Rustico, south pier	15,019 16		115 13		15,134 29
" beach, protection works	493 76	224 72			718 48
Souris harbour, breakwater			876 36		876 36
Tignish, breakwaters			1,993 79		1,993 79
West Point, wharf			67 28		67 28
Wood island, breakwaters			340 42		340 42
Generally	3,999 52			1,630 28	5,629 80
Totals, Prince Edward Island	42,254 55	1,441 24	7,025 95	1,630 28	52,352 02
<i>New Brunswick—</i>					
Albert, berth for vessels		375 29			375 29
Anderson's hollow, wharf			544 89		544 89
Baie du Vin, wharf			10 32		10 32
Barker's wharf, (River St. John)			36 14		36 14
Bass river, wharf		226 16			226 16
Bathurst, harbour impts.	41,041 50				41,041 50
" Tete a gauche	10,664 93				10,664 93
Buctouche	129 99				129 99
Burton Court House, wharf			223 50		223 50
Campbellton, wharf	16,846 49		1,292 78		18,139 27

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Continued.*

Name of Work.	Dredging	Construc- tion and Improve- ments.	Repairs.	Staff and Maintenance	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HAUBERTS AND RIVERS.					
New Brunswick—(Concluded.)					
Caraquet, wharf.....			39 85		39 85
Chatham, Middle Island.....	835 49				835 49
Chockfish, breakwater.....			139 25		139 25
Church river	3,134 88				3,134 88
Dalhousie.....	497 21				497 21
Dipper harbour, breakwater-wharf...			294 11		294 11
Durham, wharf, (Restigouche Co.)...			244 03		244 03
Edgett's Landing, wharf			70 12		70 12
Fairhaven, (Deer island), wharf ..			64 88		64 88
Fort Dalhousie, breastworks.....			9,998 63		9,998 63
Ford's Mills, (Kent Co.).....	422 08				422 08
Gagetown, wharf.		465 09			465 09
Glasier's wharf, (Sunbury Co.).....		33 97			33 97
Grand Anse, breakwater.....			1,723 43		1,723 43
Green Island	1,032 59				1,032 59
Hopewell cape, wharf.....			9 75		9 75
Leonardville, wharf			150 02		150 02
Lord's cove, wharf.....			49 95		49 95
Lorneville, wharf approach.....			75 20		75 20
Lower Jemseg, high water wharf....			7 21		7 21
McLean's Gully, (Kent Co.).....	21 65				21 65
Martin's Head, breastworks		597 83			597 83
Millerton, wharf.....			379 60		379 60
Mills Point, wharf			345 01		345 01
Moulie's river, wharf (Kent Co.)...		421 02			421 02
Negouac, wharf			1,931 25		1,931 25
Oak point, wharf	4,311 33		19 99		4,331 32
Orford's Martin's east end breakwater		360 85	370 70		731 55
Renforth, wharf (River St. John)....			39 66		39 66
River St. John, wharf			39 75		39 75
Richibucto cape, breakwater.....	1,339 67	1,799 57	123 19		3,462 23
River Kouchibouguac.....	454 00				454 00
River St. Charles	481 06				481 06
River St. John, removal of snags ..	1,983 00				1,983 00
Rothesay, wharf.			49 63		49 63
St. Andrews, Market wharf			541 26		541 26
St. John harbour improvements:—					
Channel	48,953 80				48,953 80
Courtney bay.....	179,444 04	162,369 10			341,813 14
Negouac point, breakwater.....			1,777 91		1,777 91
Partridge Island, permanent wharf, deep water wharf.		1,288 98			1,288 98
St. John West, piers, sheds, etc. .	28,857 38	132 144 45	24 884 56		187,886 39
St. Nicholas river, wharf.....		359 52	735 02		1,094 54
St. Peter's, wharf			30 75		30 75
St. Pierre, west breakwater			33 00		33 00
St. Pierre, wharf			78 50		78 50
Shippegan gully, breakwater, etc. .			3,672 24		3,672 24
Shippegan, wharf	26,274 89	1,825 59			31,170 48
Stonehaven, breakwater.....			483 55		483 55
Tracadie, wharf, breakwater			407 50		407 50
Tracadie, wharf, breakwater		1,524 29			1,524 29
Welshpool, wharf.....			50 61		50 61
Whitby, wharf			185 34		185 34
Grand total	8,170 50			2,770 91	10,941 41
Total, New Brunswick	378,096 48	243,861 51	31,529 17	2,770 91	656,258 07

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS.					
<i>Quebec—</i>					
Anse a Beaufils, wharf.....			45 00		45 00
Anse a l'Eau (Tadousac), wharf.....			6 00		6 00
Anse aux Gascons, wharf.....			568 63		568 63
Anse aux Griffons, piers.....			1,499 78		1,499 78
Anse St. Jean, wharf.....			50 77		50 77
Baie St. Paul (Cap aux Corbeaux,) wharf.....			1,270 54		1,270 54
Rarachois de Malbaie, training pier.....			1,198 96		1,198 96
Batiscan, upstream channel.....	5,095 14				5,095 14
Beloeil, new boom.....		618 07		241 73	859 80
Berthierville, wharf.....	206 14				206 14
Berthier en bas, wharf.....			994 40		994 40
Bic harbour, wharf at Pointe à Cote.....			73 35		73 35
Bigelow cut, River du Lievre.....	468 13				468 13
Brewer's creek (Labelle), landing float.....			12 00		12 00
Buckingham (Labelle), landing float.....			95 58		95 58
Cabano, wharf.....			200 65		200 65
Cacouna, wharf.....			154 70		154 70
Cap Chat, pier.....			168 54		168 54
Cap de la Madeleine, wharf.....				50 00	50 00
Cap St. Ignace, wharf.....			145 15		145 15
Cape Cove, pier.....			1,549 91		1,549 91
Caughnawaga.....	88,902 12				
Less, work done for private firm.....	532 00				
	8,370 12				8,370 12
Cascades rapids, anchor pier, reconst.....		1,360 31			1,360 31
Champlain, wharf.....				25 00	25 00
Chicoutimi, channel.....	2,932 17				2,932 17
" wharf.....			1,745 37	1,004 77	2,750 14
Clark City, wharf reconstruction.....		4,155 44			4,155 44
Contrecoeur, wharf.....	4,035 11			55 60	4,090 71
Cross point, wharf.....			767 65		767 65
Desjardins, wharf.....			2,409 82		2,409 82
Dodd's landing (Labelle), float.....			7 50		7 50
Doucet's landing.....	1,012 00				1,012 00
Douglastown, wharf.....			271 82		271 82
East Templeton, wharf.....			400 67		400 67
Father Point, wharf.....		1,051 68			1,051 68
Fort William, wharf, Ottawa river.....			51 13		51 13
Gaspe, wharf.....			1,244 52		1,244 52
Georgeville, wharf.....			69 60		69 60
Glen Almond (Labelle), landing float.....			12 00		12 00
Graham, wharf.....		3,553 31			3,553 31
Grande Bergeronnes.....			121 75		121 75
Grenville.....	401 46				401 46
Grande Vallee, wharf.....			16 00		16 00
Grindstone (Magdalen islands), breakwater.....			1,665 47		1,665 47
Grondines, wharf.....			53 27		53 27
Grosse Isle (Magdalen islands), breakwater.....			16 00		16 00
Grosse Isle, (Quarantine station) Eastern wharf.....			2,373 19		2,373 19
Grosse Isle, (Quar. station) Western wharf.....			1,783 71		1,783 71
Grosses Roches, removal of boulders.....		499 68			499 68
High Falls (Labelle Co.) landing float.....		50 75			50 75
Hospital Bay (Magdalen islands), breakwater.....			148 35		148 35
Hudson, wharf, reconstruction.....		4,799 91			4,799 91
Hull, wharf.....			167 57	45 50	213 07
Ile aux Coudres, wharf.....		474 15			474 15

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Continued.*

Name of Work.	Dredging.	Construc- tion and Improve- ments.	Repairs.	Staff and Maintenance	Total.
HARBOURS AND RIVERS.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Quebec—Continued.					
Beauport, wharf	10,944 80	...	...	...	10,944 80
Be Perrot, North, wharf	...	...	1,627 24	...	1,627 24
Be Verte, Notre Dame des Sept Dou- lours, wharf	...	199 85	...	...	199 85
Be Verte Village, wharf	...	...	2,465 58	...	2,465 58
Kapuskasing, wharf	...	...	12 50	...	12 50
Lacolle, wharf	...	...	2,887 80	...	2,887 80
Lake St. Louis	19,584 27	...	...	...	19,584 27
Lac La Perte, protection works	...	147,602 00	...	...	147,602 00
Lac Sédette (Riv. du Lièvre) landing dock	1,074 15	...	6 00	...	1,080 15
Lauzon—"Champlain" dry dock.....	...	953,670 81	...	...	953,670 81
Lauzon—"Lorne" dry dock	...	...	...	28,318 30	28,318 30
Lavetree, wharf	...	...	...	47 49	47 49
Léves, deep water wharf	...	560 00	...	1,507 11	2,067 11
Long Rapids, Riv. du Lièvre	2,279 28	...	...	...	2,279 28
Long Rapids	45,407 05	...	...	...	45,407 05
L'Ange, wharf	...	...	1,109 98	...	1,109 98
Magdalen, wharf	...	...	91 41	...	91 41
Malabar, pier	...	...	902 70	...	902 70
Masson, wharf	...	...	814 33	...	814 33
Maurice, wharf	...	...	56 01	...	56 01
Masson Point	10,410 76	...	...	...	10,410 76
Matt Lake, boat dock	...	273 04	...	...	273 04
Montreal, dry dock	...	...	...	105,000 00	105,000 00
Murray Bay, wharf	...	...	202 69	...	202 69
Newport, breakwater	...	...	907 82	...	907 82
Norway Bay, wharf (Ottawa riv.) ...	...	4,703 70	...	...	4,703 70
Papineauville, wharf	301 28	...	34 96	...	336 24
Phillipsburg, wharf reconstruction	...	2,007 28	...	...	2,007 28
Pierreville, wharf	...	...	108 30	...	108 30
Pointe à Brousseau, wharf	...	...	228 99	...	228 99
Pointe à Elie, breakwater (Magdalen islands)	...	...	129 34	...	129 34
Pointe aux Espagnols, wharf	...	...	22 39	...	22 39
Pointe aux Trembles (Portneuf Co.), wharf	...	719 94	...	...	719 94
Pointe Clavel, wharf	...	...	...	150 00	150 00
Pointe Fortin, wharf	...	...	10 00	...	10 00
Pointe Piché (Thérasburg), wharf	...	...	...	40 00	40 00
Pointe Shea (Magdalen islands), wharf.	...	...	1,298 75	...	1,298 75
Point St. Pierre, breakwater	...	...	603 29	...	603 29
Poltimore (Riv. du Lièvre), landing dock	...	...	26 50	...	26 50
Pontreux, Riv. du Lièvre	6,292 60	...	...	...	6,292 60
Quebec Harbour (Riv. St. Charles), improvements, navigation	...	137,357 18	...	...	137,357 18
Rapids, wharf	...	...	10 00	...	10 00
Rimouski, harbour improvements.....	...	59,228 01	...	...	59,228 01
Rimouski, wharf.....	...	...	195 57	1,222 81	1,418 38
Riv. aux Renards, wharf	...	...	175 00	...	175 00
Riv. Bonaventure, training pier	...	10 00	...	...	10 00
Rivière des Vases (Temiscouata Co.), pier	...	...	999 50	...	999 50
Rivière du Lièvre, pier	...	...	...	5,938 70	5,938 70
Rivière Gatineau, bank protection....	...	...	15 00	...	15 00
Rivière Ouelle, no breakwater	...	...	1,579 99	...	1,579 99
Rivière Ouelle, wharf	...	5,503 69	...	...	5,503 69
Rivière du Lièvre	517 96	...	...	...	517 96
Rivière du Lièvre	10,502 86	...	...	...	10,502 86
Rivière Saguenay, protection work....	2,754 16	498 58	32,752 54
Rivière St. Pierre	211 90	...	211 90
St. Alexis, wharf.....	2,916 25	...	2,916 25

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Continued.*

Name of Work.	Dredging.	Construc- tion and Improve- ments.	Repairs.	Staff and Maintenance	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS.					
<i>Quebec—Concluded.</i>					
St. Alphonse (Chicoutimi Co.), Wharf	5,212 03		706 14		5,918 17
St. Andre de Kamouraska, wharf.....			1,178 85		1,178 85
St. Anicet, wharf.....			132 75		132 75
Ste. Anne de Beaupre, wharf.....			674 68		674 68
Ste. Anne de Bellevue..	90 00				90 00
Ste. Anne des Monts, landing pier, etc.		7,546 15			7,546 15
Ste. Anne de Chicoutimi, wharf..			2,760 24		2,760 24
St. Charles de Caplan, wharf.....		1,142 43			1,142 43
St. Charles de Richelieu, wharf..			287 77		287 77
St. Denis de Richelieu, wharf.....			149 98		149 98
St. Eloi (Temiscouata Co.), wharf ..			155 40		155 40
Ste. Emelie (Leclercville), wharf ..			16 00		16 00
Ste. Famille (Ile d'Orleans), wharf....			193 38		193 38
Ste. Felicite, wharf.....			599 13		599 13
St. François (Ile d'Orleans, south side), wharf.....			134 20		134 20
St. Fulgence, wharf.....	1,948 82		280 95		2,229 77
Ste. Genevieve de Batiscan, approach to wharf.....		219 90			219 90
St. Gregoire de Montmorency. revet- ment wall.....		231 18			231 18
St. Ignace de Loyola, dykes.....			660 51		660 51
St. Irene les Bains, wharf.....			588 22		588 22
St. Jean des Chaillons, wharf			631 29		631 29
St. Jean (Ile d'Orleans), wharf..			114 28	12 05	126 33
St. Jerome, wharf.....			1,801 69		1,801 69
St. John's ice-pier, etc.....		739 47	18 80	28 80	787 07
St. Laurent (Ile d'Orleans), wharf....			1,852 25	105 93	1,958 18
St. Majorique, wharf.....			400 88		400 88
St. Mathias, wharf.....				15 00	15 00
St. Methode, wharf.....			300 70		300 70
St. Michel de Bellechasse, wharf ..			1,599 67		1,599 67
St. Ours, wharf.....		50 08			50 08
St. Paul, Ile aux Noix, wharf.....			777 56		777 56
St. Pierre les Becquets, wharf.....			37 20		37 20
St. Roch de Richelieu, wharf.....		952 15			952 15
St. Simeon, wharf.....			95 14		95 14
St. Ulric, wharf			1,200 00		1,200 00
St. Zotique, reconstruction of wharf..		2,039 14			2,039 14
Sabrevois, wharf.....			1,481 39		1,481 39
Seven Islands wharf, derrick.....		280 95			280 95
Sorel deep water wharf		7 00			7 00
Trois Lacs (Megantic Co.), wharf ap- proach			96 88		96 88
Trois Pistoles, wharf and breakwater..			999 37		999 37
Varennnes, protection work.....		1,232 81			1,232 81
Vaudreuil wharf.....			74 75		74 75
Woburn, wharf.....			195 50		195 50
Yamachiche, landing.....			40 00		40 00
Yamaska, lock and dam.....			671 15	1,951 73	2,622 88
Generally	12,374 08			36,807 79	49,181 87
Totals, Quebec.....	181,714 37	1,343,338 47	61,745 84	182,569 31	1,769,367 99
<i>Ontario—</i>					
Abram's Chute (Kenora dist.), remov- al of boulders		486 90			486 90
Arnprior, wharf.....				22 50	22 50
Bayfield, piers.....			1,356 44		1,356 44
Beaumaris, wharf.....			75 38		75 38
Belleville, wharf, (shed)		200 00			200 00
Big Bay Point, wharf.....			719 62		719 62
Bobcaygeon, floating wharf.....				7 50	7 50

AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.	Construc- tion and Improve- ments.	Repairs.	Staff and Mainten- ance.	Total.
(HARBOURS AND RIVERS—Continued).	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Ontario—Continued.					
Bowmanville, piers			3,322 83		3,322 83
Bracebridge, wharf			109 06		109 06
Brenta, pier			1,047 38		1,047 38
Bruce Mines, wharf, etc.		346 40			346 40
Burlington Channel, bridge			189 58	5,855 03	6,044 61
Burlington Channel, pier			1,050 00		1,050 00
Burlington, revetment wall		10,441 59			10,441 59
Byng Inlet	18,056 10				18,056 10
Cardinal	8,039 91				8,039 91
Charlton (Nipissing), wharf			113 48		113 48
Christian Island (Simcoe), wharf			554 97		554 97
Chute-a-Blondeau, wharf			45 53		45 53
Cobourg, east pier			13,227 95		13,227 95
Harbour	3,711 18				3,711 18
Laingevin pier			2,491 70		2,491 70
Collingwood graving dock No. 1				15,000 00	15,000 00
graving dock No. 2				9,208 96	9,208 96
Cumberland, wharf			298 23		298 23
Desbarats, landing float (Algoma)		99 55			99 55
Fighting island	319 33				319 33
Fort William, harbour improvements	163,913 04	62,854 07	616 37		227,383 48
French River, dam			2,745 17		2,745 17
Goderich, harbour improvements			1,094 55		1,094 55
Grand Bend, piers, etc.			181 95		181 95
Haileybury, wharf			1,389 86		1,389 86
Hamilton harbour, improvements	12,877 99				12,877 99
Hawkesbury	14,825 15				
Less, work done for private firms	8,150 01				6,675 14
Juniper Island (Stoney Lake) wharf				20 00	20 00
Kemora, wharf				180 00	180 00
Kincardine, breakwater	6,260 75		2,195 68		8,456 43
Kingston dry dock, revetment walls			8,732 11		8,732 11
harbour, improvements		45,011 93			45,011 93
Kingsville, piers			198 29		198 29
Lakeport, wharf approach			119 22		119 22
Leamington, wharf			951 05		951 05
L'Orignal, wharf			199 17		199 17
Michipicoten river, wharf			607 99		607 99
Molland	22,930 79				22,930 79
Munaka, wharf		18 20			18 20
Montreal river (Lachine) dam				2,633 99	2,633 99
Nipissing, wharf			178 50		178 50
New Liskeard, wharf			689 09		689 09
Ottawa, pier			1,219 68		1,219 68
Owen Sound, wharf			3,996 79		3,996 79
Peter Island, dock			539 20		539 20
Pontiac, wharf			1,679 33		1,679 33
Pontiac, wharf			580 02	12 07	592 09
Pontiac, wharf			598 59		598 59
Port Arthur (Georgian Bay), im- provements	3,830 35				3,830 35
Port Arthur, dry dock				35,641 50	35,641 50
harbour improvements	38,659 58	10,353 40			79,012 98
Port Bruce, pier	19,148 29		1,910 83		21,059 12
Port Colborne, west breakwater			398 50		398 50
east breakwater			1,950 00		1,950 00
Port Hope, harbour, piers			6,046 75		6,046 75
Port Macleod	9,684 37				9,684 37
Port Maitland, graving dock		16,770 18			16,770 18

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Continued.*

Name of Work	Dredging.	Construc- tion and Improve- ments.	Repairs.	Staff and Mainten- ance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS.					
<i>Ontario—Concluded.</i>					
Port Stanley harbour im- provements	19,354 46				
Less, work done for private firms.	3,119 67				
	16,234 79	55,081 98	123 85		71,440 62
Rainy River, protection works.			719 96		719 96
River Thames, removal of boulders, at mouth		11 25			11 25
Robin's Landing, wharf.				25 00	25 00
Rondeau Harbour, erosion in harbour bar, piers, etc.	2,049 87	2,737 75	3,698 39		8,486 01
St. Joseph (Huron Co.), wharf.			400 00		400 00
Sault Ste. Marie, wharf		1,140 72	505 30		1,646 02
Seven Mile Narrows, breastwork-cribs			109 76		109 76
Shrewsbury, pier.			187 95		187 95
Silver Centre, wharf.			1,030 66		1,030 66
Southampton, piers.			2,987 56		2,987 56
Sturgeon Falls, wharf			213 73		213 73
Thornbury, wharf.			737 01		737 01
Tobermory glance booms.				136 61	136 61
Toronto Harbour Improvements—					
Canadian-Stewart contract		875,586 54			875,586 54
Fisherman's Isld (new building).		745 07			745 07
Queen's wharf				50 00	50 00
Wendover, wharf.		3,457 20	124 75		3,581 95
Wheatley, wharf			227 50		227 50
Windsor, dock.		664 42	51 60	1,200 00	1,916 02
Generally.	7,080 22			14,859 58	21,939 80
Totals, Ontario.	339,502 40	1,116,007 15	74,538 86	84,852 74	1,614,901 15
<i>Manitoba—</i>					
Arnes, wharf			1,218 24		1,218 24
Assiniboine river, protection work		1,598 45			1,598 45
Big George island.	2,977 38				2,977 38
Gimli (Lake Winnipeg), wharf.			519 60		519 60
Gimli " protection work.			689 26		689 26
Hnansa (Lake Winnipeg), wharf.	1,077 56		1,260 63		2,338 19
Killarney dam.			34 44		34 44
Little Pembina river, diversion into Pelican lake		125 00			125 00
Minette, wharf.		12 87			12 87
Red River, dredging at mouth.	11,520 09				11,520 09
" Park Point, Crescent isld.	7,839 39				7,839 39
" Sugar island.	1,029 93				1,029 93
" The Forks.	10,457 79				10,457 79
St. Andrews rapids, lock and dam.			300 00	14,189 77	14,489 77
Selkirk shipyard, including arrears of rental thereon.	717 11	7,347 33		3,512 21	11,576 65
Selkirk, slough.	10,632 51				10,632 51
Generally.	1,209 60			3,186 52	4,396 12
Totals, Manitoba.	47,461 36	9,083 65	4,022 17	20,888 50	81,455 68
<i>Saskatchewan and Alberta—</i>					
Generally.	822 50			2,041 27	2,863 77
Totals, Saskatchewan & Alberta	822 50			2,041 27	2,863 77

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Dredging.	Construction and Improve-ments.	Repairs	Staff and Maintenance	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS AND RIVERS.					
<i>British Columbia.</i>					
Ainsworth, wharf			59 47		59 47
Argenta, wharf, (shed)			8 85		8 85
Alice Arm, wharf.			100 00		100 00
Beaton, wharf.			249 56		249 56
Bindlay's Landing, float.			221 59		221 59
Bold Point, float.			103 99		103 99
Burrville	4,418 28				4,418 28
Burton, wharf.			73 67		73 67
Campbell river, wharf.			1,847 18		1,847 18
Campo Pass	1,817 89				1,817 89
Capilano dam.			294 00		294 00
Christiana creek, fish screen.		484 57			484 57
Clayoquot, wharf			554 33		554 33
Comox, wharf			225 00		225 00
Coquitlam	5,402 85				5,402 85
Coutenay	6,725 67				6,725 67
Crofton, wharf			437 00		437 00
Deas island	1,591 51				1,591 51
Dignan's Bay (Gabriola isld.) float			89 89		89 89
Eagle Cliff, float.			475 32		475 32
Edgewood, wharf.			251 75		251 75
Esquimalt, old dry dock.				17,719 46	17,719 46
Fanny Bay float			154 12		154 12
Farrington's wharf (shed)			8 85		8 85
Forest Glen.	9,630 34				9,630 34
Fraser river improvements					
Annieville bar.	4,129 41				4,129 41
Chilliwack, rem. of snags at Grey-ell's slough		255 05			255 05
Eburne wing dams.	2,341 38	2,984 54			5,325 92
Nicomen slough, rem. of boulders.		199 88			199 88
North arm.	19,004 41				19,004 41
Sandheads.	66,505 09				66,505 09
Snagboat <i>Simon</i>				19,362 15	19,362 15
Scandalings generally		1,262 47			1,262 47
Steveston jetty.		8,459 93			8,459 93
Westham isld., wing dams		2,430 33	3,027 51		5,457 84
Gower Point, float.			200 03		200 03
Grace harbour, float.			476 41		476 41
Graham's Landing	2,350 39				2,350 39
Gray's Creek, wharf.			8 85		8 85
Graham's Landing, wharf.			34 32		34 32
Halcyon, wharf.			50 00		50 00
Half Moon Bay, float.		103 92			103 92
Hammond, wharf.			382 22		382 22
Haney, wharf			78 69		78 69
Hatzic, wharf			564 14		564 14
Holberg, wharf.			3,242 50		3,242 50
Hope Point, float.			19 15		19 15
James island, wharf			512 00		512 00
Kootenay, wharf			265 62		265 62
Ladner	7,393 15				7,393 15
Langley, wharf.			136 32		136 32
Lilloet river	2,269 40				2,269 40
Long Beach wharf and shed			62 85		62 85
McAdams wharf			71 14		71 14
McDonald's Landing, wharf (shed).		390 44			390 44
McKay, landing			139 40		139 40
Matsqui, wharf.			102 02		102 02
wing dam No. 1			641 20		641 20
McKay, wharf			787 04		787 04

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Continued.*

Name of Work.	Dredging.	Construction and Improvements.	Repairs.	Staff and Maintenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
HARBOURS & RIVERS.					
<i>British Columbia—Continued.</i>					
Mirror lake, wharf.....			335 34		335 34
Mission, wharf			100 50		100 50
Mount Lehman, wharf			200 33		200 33
Naas river.....	5,224 50				5,224 50
Nanaimo harbour, impts.....	39,469 24				39,469 24
Needles, wharf approach.....			49 96		49 96
New Westminster, bone yard.....	234 12				234 12
Brunette saw mills.....	1,372 82				1,372 82
Heaps engineering works.....	3,875 08				3,875 08
Nitinat.....	3,650 80				3,650 80
Nootka island, wharf			2,489 00		2,489 00
Okanagan river, improvements.....	7,157 88	1,332 34			8,489 42
Pender harbour, float.....			7 60		7 60
Port Coquitlam	5,110 18				5,110 18
Port Clements (Queenston), wharf.....			1,596 56		1,596 56
Port Moody, wharf			241 99		241 99
Powell River, wharf.....			998 46		998 46
Prince Rupert graving dock (insp.)				2,533 36	2,533 36
" " quarantine station, wharf			2,000 00		2,000 00
Pritchard (Shuswar lake), wharf		15 60			15 60
Quatsino, wharf.....			4,356 20		4,356 20
Renata, wharf.....			39 75		39 75
Riverside, wharf			309 70		309 70
Revelstoke, mattresses.....		1,995 57			1,995 57
" extension to wing dam.....		59 84			59 84
Robert's Creek, wharf.....			495 96		495 96
Rocky Point, wharf			349 52		349 52
Roy, float			8 85		8 85
Safety Cove, wharf.....			32 00		32 00
Sapperton, wharf.....			814 42		814 42
Savary Island, wharf.....			248 50		248 50
Sidney Island, wharf.....			1,246 50		1,246 50
Skeena river.....	11,803 48				11,803 48
Smith's Landing (Cortez island) float.....			10 00		10 00
Spintula, float.....			16 00		16 00
Squamish	4,129 41				4,129 41
Stave river	1,755 41				1,755 40
Syringa Creek, float.....			51 00		51 00
Ucluet, wharf.....			580 00		580 05
Union Bay, wharf.....			6,688 25		6,688 20
Vancouver, False Creek.....	1,121 70				1,121 78
" First Narrows.....	59,264 48				59,264 44
" Harbour improvements.....	228 41	6,515 35	1,692 18		8,435 96
" Parthia shoal	55,181 46				55,181 40
Vargas island, wharf.....			10 00		10 00
Victoria harbour.....	121,206 24				
Less, work done for private firms	1,389 51	1,370,005 04			1,489,821 77
	119,816 73				
West Demars, wharf.....			194 63		194 63
Whonnock, wharf			298 71		298 71
William's Head, quarantine station.....		3,471 44			3,471 44
Willow Point, float.....			449 27		449 27
Generally	2,492 15			8,749 51	11,241 66
Totals, British Columbia.....	455,466 92	1,399,966 31	41,867 16	48,364 48	1,945,664 87

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Continued.*

Name of Work.	Construc- tion.	Repairs.	Staff and Maintenance	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
TELEGRAPH LINES.				
<i>Newfoundland—</i>				
Cape Ray (subsidy).....			250 00	250 00
<i>Maritime Provinces—</i>				
Bay of Fundy lines.....			3,107 45	3,107 45
Cape Breton lines		4,504 55	32,747 64	37,252 19
Escuminac line		2 07	2,166 71	2,168 78
Prince Edward Island, cable and mainland.....			13,893 32	13,893 32
<i>Quebec Mainland—</i>				
Father Point (subsidy).....			750 00	750 00
North Shore, East of Bersimis			28,674 68	28,674 68
" West of Bersimis.....			21,193 03	21,193 03
Dorchester County, lines.....	3,699 88			3,699 88
Quebec County, lines.....	2,372 25		5,244 56	7,616 81
Timiskaming, lines			3,288 92	3,288 92
<i>Quebec Island—</i>				
Anticosti system.....			9,267 02	9,267 02
Cable ship "Tyrian".....			57,236 75	57,236 75
Grosse Isles, Isle aux Coudres & Island of Orleans system			6,862 76	6,862 76
Magdalen islands system.....			5,148 60	5,148 60
Maritime Provinces and Gulf generally.....			2,741 16	2,741 16
<i>Ontario—</i>				
Pelee Island cable			1,574 42	1,574 42
<i>Saskatchewan Lines.....</i>	2,662 88	7,373 33	51,822 05	61,858 26
<i>Alberta Lines</i>	1,559 29	3,093 14	74,944 41	79,596 84
<i>British Columbia and Yukon—</i>				
Ashcroft-Dawson system.....	674 30		219,068 55	219,742 85
British Columbia, mainland system.....	7,574 41	19,176 97	59,311 30	86,062 74
British Columbia, Vancouver island system.....			98,761 90	98,761 90
Telegraph service generally.....			703 12	703 12
Totals, Telegraph Lines.....	18,543 01	34,150 06	698,758 41	751,451 48

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—Continued.

Name of Work.	Construc- tion and Improve- ments.	Repairs.	Staff and Maintenance	Total.
MISCELLANEOUS.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Surveys:—				
Maritime Provinces			15,597 77	
Quebec			24,297 85	
Ontario			11,265 72	
Manitoba			992 44	
Saskatchewan and Alberta			1,656 26	
British Columbia			8,824 25	
Generally			2,008 00	64,642 29
Upper Ottawa Storage Dams:—				
Brook's Township	328 61			
Kippawa dam	531 00			
Latappe township	15,574 58			
Metering flow	30,027 36			
Quize dam	17,296 81			
Timiskaming dam	42,185 03			
Generally	28,796 51			134,739 90
Accounts Branch:—Salaries and travelling expenses of agents, clerks &c of outside service			20,134 01	20,134 01
Georgian Bay Ship Canal Commission			5,137 89	5,137 89
Gratuities to widows or other representatives of 32 deceased employees, under Civil Service amend- ment Act, Sec. 41			5,901 36	5,901 36
Compassionate allowance to the widow of the late R. J. Barnhart of C.G.S. "Cingalee"			2,000 00	2,000 00
Compassionate allowance to the widow of the late C. Go of C.G.S. "Petrel"			2,000 00	2,000 00
Compassionate allowances to the widows or other representatives of the late members of the crew of Dredge No. 6 wrecked on 17th January, 1917			17,000 00	17,000 00
Gratuity to Onesime Chayer permanently injured while working on Timiskaming dam			500 00	500 00
Paid Robert Dunbar for reporting proceedings at Coroner's Inquest re fire of Parliament Buildings			74 40	74 40
Legal services re cases before International Joint Commission			3,371 09	3,371 09
Monument to His late Majesty King Edward VII	2,702 61			2,702 61
Operation and maintenance of inspection boats			40,970 87	40,970 87
River gauging and metering			26,842 29	26,842 29
War Appropriation:—Salaries in connection with Military Service			92,987 89	92,987 89
Totals, Miscellaneous	137,442 51		281,562 09	419,004 60

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AMOUNTS expended by the Department of Public Works of Canada during the fiscal year ended March 31, 1918—*Concluded.*

Recapitulation.	Dredging.	Construction and Improvements	Repairs.	Staff and Maintenance.	Total.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
Totals Public Buildings—					
Nova Scotia.....		12,662 48	25,827 98	90,688 38	129,178 84
Prince Edward Island.....		3,753 31	3,122 79	15,322 54	22,198 64
New Brunswick.....		5,406 36	9,956 55	72,138 08	87,500 99
Quebec.....		231,927 78	53,223 19	404,790 71	689,941 68
Ottawa buildings.....		1,759,573 72	522,153 27	996,173 41	3,277,900 40
Ontario (excluding Ottawa).....		279,866 86	35,342 58	313,241 54	628,450 98
Manitoba.....		69,011 46	14,122 46	126,714 79	209,848 71
Saskatchewan.....		29,394 56	13,871 27	74,965 51	118,231 34
Alberta.....		237,384 43	9,348 49	109,945 96	356,678 88
British Columbia.....		38,364 39	16,421 84	141,543 00	196,329 23
Yukon Territory.....				40,006 17	40,006 17
Public Buildings generally..		7,510 53		79,512 33	87,022 86
Totals, Harbours and Rivers—					
Nova Scotia.....	95,170 45	197,385 05	58,665 06	2,932 47	354,153 03
Prince Edward Island.....	42,254 55	1,441 24	7,025 95	1,630 28	52,352 02
New Brunswick.....	378,096 48	243,861 51	51,529 17	2,770 91	676,258 07
Quebec.....	181,714 37	1,343,338 47	61,745 84	182,569 31	1,769,367 99
Ontario.....	339,502 40	1,116,007 15	74,538 86	84,852 74	1,614,901 15
Manitoba.....	47,461 36	9,083 65	4,022 17	20,888 50	81,455 68
Saskatchewan and Alberta.....	822 50			2,041 27	2,863 77
British Columbia.....	455,466 92	1,399,966 31	41,867 16	48,364 48	1,945,664 87
Yukon Territory.....		4,272 45			4,272 45
Harbours & Rivers generally	9,588 26			394,346 32	403,934 58
Totals, Dredging plant.....		21,989 42	30,399 10		52,388 52
" Slides and booms.....		3,618 31	17,617 34	43,623 71	64,859 36
" Roads and bridges.....		1 00	8,103 86	10,886 55	18,991 41
" Telegraph lines.....		18,543 01	34,150 06	698,758 41	751,451 48
" Miscellaneous.....		137,442 51		281,562 09	419,004 60
Grand totals of expenditure...	1,550,077 29	7,171,805 96	1,093,054 99	4,240,269 46	14,055,207 70

CONTRACTS, DEEDS AND LEASES.

By J. A. CHASSÉ, LAW CLERK.

STATEMENT No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918.

Works.	Names of Contractors.	Date of Contract.	Amount.
Public Buildings			
Yvon Soudon.			
Antwerp	W. A. Fillmore	.....	\$ cts.
Antwerp	J. H. Edwards	.....	6 50
Antwerp	Ed. Haley	.....	8 50
Antwerp	C. P. Terrio	.....	7 50
Antwerp	S. W. McDonald	.....	8 50
Antwerp	J. S. Esworthy	.....	7 50
Antwerp	A. N. Whitman & Son	.....	9 00
Antwerp	Dartmouth Coal & Supply Company	.....	9 45
Antwerp	Dartmouth Coal & Supply Company	.....	8 00
Antwerp	W. E. Van Diercom	.....	8 00
Antwerp	Dominion Coal Company	.....	8 50
Antwerp	Lewis Hart & Company	.....	5 45
Antwerp	H. D. Mackenzie Company	.....	8 00
Antwerp	H. D. Mackenzie Company	.....	7 75
Antwerp	S. Cunard & Company	.....	14 50
Antwerp	H. D. Mackenzie Company	.....	7 75
Antwerp	The Maritime Bridge Company, Ltd	March 19, 1918	7 75
Unit prices.			
Inverness	Inverness R. A. C. Company	.....	5 00
Kentville	C. L. Dodge	.....	7 45
Kentville	Kentville Coal Company	.....	8 00
Kentville	Southern Salvage Company	.....	8 00
Kentville	A. H. Anderson	.....	9 35
Kentville	Acadia Coal Company	.....	7 00
Kentville	Bate, MacMahon & Company	March 27, 1918	249,524 00
Liverpool	H. G. Campbell	.....	5 00
Liverpool	H. G. Campbell	5 00
Liverpool	W. J. Berry	7 00
Liverpool	D. W. English	6 50

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"	Post office	Bit.	D. W. English	6 50
Shelburne	"	Bit.	Shelburne Shipbuilders	8 90
Springhill	"	Bit.	G. W. McKnight	6 00
Sydney	"	Bit.	Dominion Coal Company	10 10
" Mines	"	Bit.	H. G. Campbell	5 00
Truro	"	Bit.	J. H. Kent & Company	1 00
Westville	"	Bit.	G. E. Munro	5 00
Windsor	Post office	Bit	F. W. Dimock	6 77
Wolfville	"	Bit.	A. M. Wheaton	8 00
Yarmouth	"	Bit.	Killam Bros.	8 50
Prince Edward Island.				
Charlottetown	Dominion building	Coal per ton—Bit	C. Lyons & Company	45
"	Old bank building	Bit	Geo. E. Full	2 60
"	Experimental farm	Bit	C. Lyons & Company	2 90
"	"	Bit, nut.	C. Lyons & Company	9 50
Georgetown	Post office	Bit	J. A. MacDonald	7 40
Montague	"	Bit	Poole & Thompson	7 45
Souris	"	Bit	Matthews & McLean	9 00
Summerside	"	Bit	R. S. Holman	8 50
Tignish	"	Bit	R. S. Holman	9 65
New Brunswick.				
Bathurst	Post office	Coal per ton—Bit	A. C. Branch & Company	9 00
Campbellton	"	Bit	R. K. Shives	8 50
Chatham	"	Bit	H. B. McDonald	9 00
Dalhousie	"	Bit	Chas. Powell	9 00
Fairville	"	Bit	Colwell Fuel Company	8 50
Fredericton	"	Bit	S. L. Morrison	8 25
"	Experimental farm	Bit	S. L. Morrison	8 25
"	New building	Bit	S. L. Morrison	8 25
Grand Falls	Post office	Anth., nut.	J. L. White	12 00
"	"	Anth., egg.	J. L. White	12 00
Hampton	"	Bit	J. W. Smith	8 00
Hartland	"	Bit	Bartt Hardware Company	9 35
Marysville	"	Bit	S. L. Morrison	9 25
Newcastle	"	Bit	The Stothart Mercantile Company	8 00
Richibucto	"	Bit	Richard O'Leary	8 45
St. John	Old post office	Bit	R. P. and W. F. Starr	7 75
"	Post office	Anth	R. P. and W. F. Starr	14 75
"	New post office	Bit	R. P. and W. F. Starr	7 75
"	Savings bank	Anth., egg.	J. S. Gibbon & Company	13 75
"	Immigration building	Anth	J. S. Gibbon & Company	13 75
"	"	Bit	R. P. and W. F. Starr	8 15
"	Custom house	Bit	R. P. and W. F. Starr	7 75
"	Post office	Anth., egg.	McGivern	15 00
St. Stephen	Post office	Anth-Egg.	Jos. McVay & Son	12 50
"	"	Anth-Nut.	Jos. McVay & Son	12 75

Statement No. 1—Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Works.				Names of Contractors.		Date of Contract.	Amount.
							\$ cts.
Public Buildings—Continued.							
New Buildings—Completed.							
St. Stephen	Immigration building	Coal per ton	Anth. Stove	Jos. McVay & Son			12 75
Sussex	Post office	"	Bit	Sussex Mercantile Company			8 75
Timber Lake (Levett)		"	Anth. Egg	The Stothart Mercantile Company			17 00
"		"	Bit	The Stothart Mercantile Company			11 00
"	Doctor's Residence	"	Anth. Egg	The Stothart Mercantile Company			17 00
"		"	Anth. Nut	The Stothart Mercantile Company			17 00
Windsor	Post office	"	Anth. Stove	Fleming C. & W. Company			13 50
"		"	Anth. Nut	Fleming C. & W. Company			13 50
Quota.							
Acton Vale	Post office	Coal per ton	Anth. Egg	V. J. Mongeau			9 50
Arthursville		"	Anth. Egg	L. O. Pepin & Fils			10 00
Aylmer		"	Anth. Egg	Aylmer Coal & Supply Company			9 50
Bathurstville		"	Anth. Stove	F. Gauthier Lamarche			9 75
Buckingham		"	Anth. Egg	Hart & Adair			8 55
Cap Kope	Experimental farm	"	Anth. Nut	Hart & Adair			9 70
Chapman	Post office	"	Anth. Furn.	Cote, Boivin & Company			10 00
Chatham		"	Anth. Egg	B. J. Smith & Son			8 90
"		"	Anth. Nut	B. J. Smith & Son			9 15
Cookshire		"	Anth. Egg	S. T. Osmond & Son			11 00
Crabtreeville		"	Anth. Egg	J. A. Gendron			10 45
Dundas	Custom house	"	Anth. Stove	Mrs. A. S. Matthews			9 00
"		"	Anth. Nut	Mrs. A. S. Matthews			9 25
East Angus	Post office	"	Anth. Egg	J. A. Planché			10 00
Farnham		"	Anth. Egg	A. B. Comeau			10 00
Fraserville		"	Anth. Egg	La Cioche Charbon de Fraserville			12 50
Grahamby		"	Anth. Egg	Phoenix & Girard			9 00
Hochelaga		"	Anth. Egg	Hart & Adair			9 50
"		"	Anth. Nut	Hart & Adair			9 50
Hull		"	Anth. Furn.	Hull Coal Company			9 50
Herville		"	Anth. Stove	John Donaghy			9 00
Labette		"	Anth. Egg	Ephrem Bolduc			9 25
Jonquiere		"	Anth. Egg	J. P. Marcotte			12 00
Knowlton		"	Anth. Furn.	A. E. Ralston			9 50
Lachine		"	Anth. Egg	Lachine Wood and Coal Company			9 50
"		"	Anth. Nut	Lachine Wood and Coal Company			9 75
Lachine		"	Anth. Stove	J. D. Campbell			12 00

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"		" Anth.Stove	M. Smith.	12 00
Lacolle	Immigration office	Anth., stove	J. E. Masten	9 15
Laprairie	Post office	" "	Demers & McGee.	9 50
"	"	" nut.....	Denhers & McGee.	9 50
L'Assomption	"	" egg....	Chs. Rho..	9 30
Lennoxville	"	" stove ..	Clark & Stewart.	9 75
Lévis	"	" "egg	Paquet & Fils .	9 25
Longueuil	"	" nut	C. P. Dennicourt	8 40
"	"	" egg.....	C. P. Dennicourt	8 20
Louiseville	"	" " " " " "	Dr. A. Plante .	9 40
Magog	"	" " " " " "	D. Mullins .	9 50
Marieville	"	" nut.....	Alph. Rondeau .	9 00
"	"	" egg....	Alph. Rondeau .	9 00
Matane	"	" " " " " "	J. A. Boulay .	15 00
Megantic	"	" " " " " "	A. H. Evans .	11 00
Montmagny	"	" " " " " "	A. Belanger & Company	11 00
Montreal	Postal station (Delormier St.). Interior fittings.	"	F. Tremblay & Company	June 1, 1917 1,632 00
"	Custom house.....	Coal per ton—Anth., furn	Hartt & Adair	9 30
"	Customs canal office.....	" stove.....	Hartt & Adair.	9 50
"	Examining warehouse.....	bit bit	Stinson-Reed.	8 85
"	New examining warehouse.....	furn	Hartt & Adair.	9 50
"	P. O. station "A"	egg	Hartt & Adair	9 50
"	" "B"	" " " " " "	Hartt & Adair	9 50
"	" "C"	" " " " " "	Hartt & Adair	9 50
"	" "D"	" " " " " "	Hartt & Adair	9 50
"	" "E"	" " " " " "	Hartt & Adair	9 50
"	" "F"	" " " " " "	Hartt & Adair.	9 50
"	" "H"	" " " " "furn	Hartt & Adair.	9 50
"	" "M"	" " " " "egg	Hartt & Adair	9 50
"	" "S"	" " " " "furn	Hartt & Adair	9 50
"	Old Herald building.....	egg	Hartt & Adair.	9 50
"	" " " "	nut.....nut	Hartt & Adair.	9 50
"	Revenue building.....	egg...egg	Hartt & Adair	9 50
"	Forestry branch.....	" " " " " "	Hartt & Adair.	9 50
"	Detention hospital.....	" furn.....furn,	Hartt & Adair	9 50
"	" " " " " "	" stove.....stove.	Hartt & Adair	9 50
"	Postal station "A"	Supply and installation of an incine elevator in	The Turnbull Elevator Mfg. Co	Sep't. 6, 1917. 1,400 00
"	Customs examining warehouse.Metallic storage cases for stationary	ery	The Steel Equipment Co., Ltd.	Sep't. 15 , 1917 1,987 00
Murray Bay	Post office.....	Coal per ton —Anth., egg.....	Canadian Import Company.	14 95
Nicolet	" " " " " "	" " " " " "	Jacqucs Courteau	10 50
Pierreville,	" " " " " "	" " " " " "	Laperriere & Son.	9 20
Plessisville	" " " " " "	" " " " " "	La Fonderie de Plessisville	14 00
Quebec	Custom house.....	" " " " "furn.	Canadian Import Company.	10 90
"	" " " " " "	" " " " " "	" " " " " "	10 90
"	Marine Agency.....	" " " " " "	" " " " " "	10 90
"	Examining warehouse.....	" " " " " "	" " " " " "	10 90
"	Immigration-hospital.....	" egg.....egg,	" " " " " "	10 90
"	" " " " " "	" stove.....stove.	" " " " " "	10 90

Statement No. 1—Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Works.		Names of Contractors.		Date of Contract.	Amount.
Public Buildings (Continued).					
Ouellette—Continued.					
Connaught	Post office	Coal per ton	Anth., nut	Jos. Broderick	
Dorchester			furn	The Deseronto Coal Company	
Dundas			egg	Garnet Wells	
			nut	Garnet Wells	
Dundas			egg	W. Cooper & Company	
Frontville			"	John Lisk	
Frontville			stove.	C. Fisher	
Frontville			"	A. E. Nichol	
Frontville			egg	Fort William I & F Company	
Frontville			"	Fort William I & F Company	
Frontville			nut	Jas. Murphy	
Frontville			egg	W. A. Smith	
Frontville			"	Jas. Taylor & Son	
Frontville			"	Jas. Taylor & Son	
Frontville			furn	McAlpine Bros	
Frontville			nut	McAlpine Bros	
Frontville			egg	H. J. A. MacEwan	
Frontville			nut	H. J. A. MacEwan	
Frontville			stove.	J. H. Gibson	
Frontville			nut	J. H. Gibson	
Frontville			egg	Kloepfer Coal Company	
Frontville			"	Gillies Guy	
Frontville			Bit	Gillies Guy	
Frontville			Anth., egg	Gillies Guy	
Frontville			"	W. H. Eydt	
Frontville			furn	John Howes	
Frontville			nut	John Howes	
Frontville			egg	W. Wilson	
Frontville			"	Scott & Daniels	
Frontville			furn	Fort William Coal Dock Co	
Frontville			nut	Fort William Coal Dock Co	
Frontville			Coal per ton—Anth., stove	L. C. Patterson	
Frontville			"	"	
Frontville			Leveling of lot, building of retaining walls, etc.	James Todd	
Frontville			Coal per ton	Murphy Bros	
Frontville			"	J. W. Wilson	

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Kingston	"	"	"	"	"	nut.	S. Anglin & Company		9 25
"	"	"	"	"	"	egg	"		10 00
"	"	"	"	"	"	nut.	"		10 00
"	"	Inland revenue	"	"	"	egg	"		10 00
"	"	"	"	"	"	nut.	"		10 00
"	"	Customs house	"	"	"	egg	"		10 00
"	"	"	"	"	"	nut.	"		10 00
"	"	Naval Service R.M.C.	"	"	"	nut.	"		10 00
Kitchener	"	Post office	"	"	Erection of gymnasium for	"	H. Hunter	Jan. 9, 1918.	1,994 00
Lakefield	"	"	"	"	Coal per ton—Anth., egg.	egg	Kloepfer & Company		8 75
"	"	"	"	"	"	egg	W. J. Charlton		10 00
Leamington	"	"	"	"	"	nut.	D. Smith		10 00
"	"	"	"	"	"	egg	"		9 00
Lindsay	"	"	"	"	"	nut.	Flavelles, Ltd.		9 00
"	"	"	"	"	"	egg	"		9 50
Listowel	"	"	"	"	"	nut.	Robert Oliver		9 50
"	"	"	"	"	"	egg	R. T. Kemp & Son		8 50
London	"	"	"	"	"	nut.	Wm. Buchanan		8 75
"	"	Customs house	"	"	"	egg	"		9 50
"	"	"	"	"	"	egg	"		9 50
Markham	"	Post office	"	"	Bit.	"	R. Welsh		8 50
Midland	"	"	"	"	Anth., stove.	"	D. S. Pratt		9 00
"	"	"	"	"	"	egg	"		9 75
Mildmay	"	"	"	"	"	nut.	"		9 75
Milton	"	"	"	"	"	nut.	Alex. Kramer		9 25
"	"	"	"	"	"	egg	Blain & Hamman		8 50
Milverson	"	"	"	"	"	nut.	"		8 50
Mitchell	"	"	"	"	"	egg	F. Weidenhold		8 50
"	"	"	"	"	"	furn.	R. J. Cook		8 75
Mount Forest	"	"	"	"	"	nut.	"		9 00
"	"	"	"	"	"	egg	E. E. Broughton		8 25
Napanee	"	"	"	"	"	nut.	"		8 50
"	"	"	"	"	"	stove.	Chas. Stevens		9 00
Newmarket	"	"	"	"	"	nut.	"		9 00
Niagara Falls	"	"	"	"	"	furn.	Oliver Dike		9 00
"	"	"	"	"	"	egg	W. E. Thomas		8 50
North Bay	"	"	"	"	"	nut.	"		8 50
Norwich	"	"	"	"	"	egg	North Bay Fuel Co		9 75
"	"	"	"	"	"	Anth., egg.	Corbett & Connell		9 00
Ontario	"	Post offices generally	"	"	Anth., stove.	"	"		9 00
"	"	Dominion public buildings	"	"	Sorting cases.	"	The Berlin Interior Hardwood Co., Ltd.	July 27, 1917	1,450 00
Orangeville	"	Post office	"	"	sections No. 14CV.	"	Office Specialty Mfg. Co., Ltd.	Aug. 22, 1917	8,290 00
Orillia	"	"	"	"	Coal per ton—Anth., egg.	"	C. C. G. Hannah		9 10
"	"	"	"	"	"	Anth., egg.	S. E. Carrs Lumber Company		9 25
Oshawa	"	"	"	"	"	Anth., nut	"		9 50
"	"	"	"	"	"	Anth., egg.	E. V. Lander		9 50
Ottawa	"	Dominion public buildings	"	"	"	Anth., nut.	"		9 50
"	"	Dept. of Trade & Commerce— (Record room)	"	"	100 metallic filing cabinets	"	The Steel Equipment Co., Ltd.	April 19, 1917	4,800 00
"	"	"	"	"	Steel fittings	"	Office Specialty Mfg. Co., Ltd.	May 2, 1917	2,275 00

Statement No. 1—Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Works	Names of Contractors	Date of Contract	Amount
Public Buildings—Continued.			
Orders—Continued.			
Dept. of Militia & Defence— Mobilization order			\$ cts.
Public buildings.	The Steel Equipment Co., Ltd.	May 3, 1917	2,630 00
Parliament buildings	Office Specialty Mfg. Co., Ltd.	May 4, 1917	10,600 00
"	Montreal Terra Cotta Company	May 7, 1917	14,102 50
"	Sun Brick Company	May 7, 1917	17,337 50
"			
Supply of 5,000 pieces of spruce planking for.....	Estate of James Davidson	May 7, 1917	5,200 00
Supply of Arch tile terra cotta for	National Fireproofing Co. of Canada, Ltd.	May 7, 1917	104,473 75
Dept. of Militia & Defence— Mobilization order	Office Specialty Mfg. Co., Ltd.	May 14, 1917	8,495 00
Dept. of Inland Revenue	The Steel Equipment Co., Ltd.	May 25, 1917	629 00
Post office—Dept. Money Order branch		June 7, 1917	4,075 00
Interior—Dept. Immigration branch		June 7, 1917	445 00
Dept. of Militia & Defence— Record office		July 9, 1917	675 00
East block—Departmental building	The Campbell Steel & Iron Works Ltd.	July 18, 1917	3,450 00
Post office—Dept. of Postage stamp branch		July 18, 1917	435 00
Victoria Memorial Museum building—National Art Gallery of Canada	The Steel Equipment Co., Ltd.	July 20, 1917	1,138 00
Parliament buildings	The National Brick Co., of Lachine Ltd.	July 25, 1917	12 00 p.m.
Public buildings	John Henry & Son Ltd., and The C. C. Ray Co., Ltd.	Aug. 7, 1917	Sched. of prices.
Domestic public buildings	Office Specialty Mfg. Co. Ltd.	Aug. 22, 1917	8,200 00
Parliament buildings	Canada Cement Company, Ltd.	Sept. 8, 1917	\$2 18½ per bbl.
"	Datnell Ltd.	Sept. 8, 1917	6,500 00
Departmental buildings	The Canadian Tungsten Lamp Co., Ltd.	Sept. 18, 1917	5,798 50
Parliament buildings	W. J. McGuire, Ltd.	Sept. 20, 1917	129,900 00
"	Wallace Sanbstone Quarries, Ltd.	Sept. 22, 1917	150 708 00

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Ottawa.....	Parliament buildings	Supply of marble for stairs, landings & corridor paving.....	The Mississquoi Marbles, Ltd.....	Sept. 22, 1917	169,880 00
"	Post office.....	Alterations and additions to Post office and Money order office fittings.....			
"	Parliament buildings	Supply of Hy-Rib	Jos. Bourque	Sept. 24, 1917.	5,450 00
"	Wellington street roadway	Repairing and resurfacing of	The Trussed Concrete Steel Co. of Canada.....	Sept. 26, 1917.	16,480 00
"	Parliament buildings	Roofing and sheet metal work.	Ottawa Construction Co., Ltd.	Sept. 27, 1917	Sched. of prices.
"	Dept. of Militia & Defence—(O.A.A.C. building, Record office).....	Metallic curtain case S.1807.....	W. E. Dillon, Ltd	Oct. 1, 1917	76,100 00
"	Dept. of Militia & Defence—(O.A.A.C. building, Record office).....	Card index cases S.1815	The Steel Equipment Co., Ltd.	Oct. 9, 1917.	1,095 00
"	Public buildings	Supply of 400 four cap drawer filing sections	Office Specialty M'fg. Co., Ltd.	Oct. 9, 1917.	2,695 00
"	Dept. of Militia & Defence—(O.A.A.C. build.) Rec. office, Finance Department.....	Metallic card index drawers and cases S. 1813.	The Steel Equipment Co., Ltd.....	Oct. 19, 1917.	16,320 00
"	Extension to East block—(Macer-ative plant of currency branch), Supply of 51 uniforms for Elevator attendants of.....		Office Specialty Manufacturing Co., Ltd	Oct. 29, 1917.	10,400 00
"	Dominion buildings		Doran and Devlin.	Nov. 5, 1917.	7,400 00
"	Customs building (Assistant Registrar Secretary of State). Finance Department—(War loan vault).....	Supply of 51 uniforms for Elevator attendants of.....	The Two Macs, Ltd.....	Dec. 6, 1917.	30 00 p.suit.
"	Secretary of State—(Connaught Building) Room 512.....	Fittings.....	Office Specialty Manufacturing Co., Ltd.....	Dec. 17, 1917	4,192 00
"	Dominion Public buildings	Metallic fittings	"	Jan. 4, 1918.	949 00
"	"	Supply of 125 four cap drawer ver-tical filing sections No. 22 C. V. (S-1945)	"	Jan. 14, 1918.	549 00
"	"	Supply of 200 four cap drawer ver-tical filing sections No. 14 C. V. S-1950).....	"	Jan. 25, 1918.	5,600 00
"	Victoria memorial museum... ..	Supply of 1,000 trays for storage, case style "E"	The Steel Equipment Company, Ltd.. ..	Feb. 1, 1918.	8,160 00
"	Dept. of the Interior—(Lands patent branch)	Metallic fittings.....	The Brockville Lumber Company, Ltd.....	Feb. 4, 1918.	880 00
"	Government Printing Bureau.....	Installation of two freight elevators.....	Art Metal Construction Company	Feb. 20, 1918.	473 00
"	Canadian building	Alterations and additions to toilet accommodation in	Otis-Fensom Elevator Co., Ltd	Mar. 5, 1918.	7,935 00
"	Parliament buildings	Heating and ventilating equipment	McKinley and Northwood	Mar. 5, 1918.	2,690 00
"	"	Two traction elevators for office blocks.....	W. G. Fidge, Ltd	Mar. 28, 1918.	386,000 00
Owen Sound.....	Post office	Coal per ton—Anth., egg.....	Otis-Fensom Elevator Co., Ltd.....	Mar. —, 1918.	3,194 00
Palmerston.....	"	Anth., egg.....	Davis-Smith-Malone Co.....		8 70
"	"	"	E. B. Warren		10 00
Paris.....	"	Anth., egg.....	O. B. Henry & Co.....		9 00
"	"	Anth., stove.....	Paris C. & L. Company		9 00
"	"	"	"		9 00

Statement No. 1.—Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
PUBLIC BUILDINGS—Continued			
Ontario—Continued			
Parkhill	Wm. Leary	.....	8 50
Pembroke	"	.....	8 50
Peterborough	Dunlop & Company	.....	10 10
"	H. B. Taylor & Son	.....	10 00
Pictou..	"	.....	10 00
"	W. H. Lake	.....	10 00
"	Hyatt & Ralston	.....	10 00
Port Arthur	Louis Walsh Coal Co.	.....	10 00
"	"	.....	9 75
"	Thandler Bay L. & F. Company	.....	9 75
Exchanging warehouses	The Public Utilities Commission of the City of Port Arthur	Oct. 19, 1917	\$1.00 per month p. H.P., 0-02c. per kil. hour first 50 hours, 0-013c. for 2nd 50 hours and 0-0015c. for balance.
Port Charlotte	D. W. Carter	.....	8 65
Port Hope	J. M. Rosevear & Company	.....	9 00
Port Perry	"	.....	9 00
Prescott	C. L. Vickery	.....	10 25
"	James Backley	.....	9 00
Preston	"	.....	9 00
Renfrew	Jos. Gillies & Son	.....	9 50
Sarnia	James Ward	.....	11 75
"	Eug. Breaux	.....	8 50
Sault Ste. Marie	Clark Coal Company	.....	8 75
"	Sault Ste. Marie C & W Company	9 00
"	"	9 75
Shedburne	W. L. Keys	9 50
"	Jelly & Mowatt	8 00
"	"	9 00

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Location	Post office	Coal per ton—Anth., stove	Contractor	Price
Shelburne	Post office	Anth., stove	Jelly & Mowatt	9 00
Smiths Falls	"	egg.	C. H. Crozier & Company	10 00
"	"	" nut.	"	10 00
Steeleton	"	" nut.	Sault Ste. Marie C & W Company	10 00
"	"	" stove	"	10 00
Stratford	"	" egg.	Fiebig & Hegey	9 50
Strathroy	"	" furn.	R. W. Nicholson	8 25
"	"	" nut.	"	8 50
St. Catharines	"	" egg.	Cloney & Winton	9 25
St. Marys	"	" egg.	A. Deveney	9 50
"	"	" nut.	"	9 50
St. Thomas	"	" egg.	F. J. Moore	8 70
Sudbury	"	" furn.	W. H. Cox Coal Co	9 50
Toronto	Custom House	Grate	P. Burns & Company	9 50
"	"	Anth., nut.	"	9 50
"	"	"	"	9 50
"	Express Building	" stove.	"	9 50
"	"	" egg.	"	9 50
"	"	"	"	9 50
"	Examining Warehouse	Grate	"	9 50
"	"	"	"	9 50
"	Post Office	Anth., egg.	"	9 50
"	"	" furn.	"	9 50
"	"	" stove.	"	9 50
"	"	" nut.	"	9 50
"	"	" nut.	"	9 50
"	"	" egg.	"	9 50
"	52 Adelaide St.	" egg.	"	9 50
"	22 Adelaide St.	Coal per ton—Anth., nut.	"	9 50
"	Postal terminals	Anth., egg.	"	9 50
"	Postal station "C"	Anth., egg.	"	9 50
"	"	Anth., egg.	"	9 50
"	"	Anth., egg.	"	9 50
"	"	Anth., nut.	"	9 50
"	"	Anth., egg.	"	9 50
"	"	Anth.	"	9 50
"	"	Anth., egg.	"	9 50
"	"	Anth., nut.	"	9 50
"	Revenue office	Anth.	"	9 50
"	"	Anth., nut.	"	9 50
"	"	Anth.	"	9 50
"	P. O. garage.	Anth., furn.	"	9 50
"	"	Anth., egg.	"	9 50
"	"	Anth.	"	9 50
"	50 Victoria St.	Anth., egg.	"	9 50
"	"	Anth., nut.	"	9 50
"	"	Anth.	"	9 50
"	Post office	Anth., egg	J. G. Squire.	8 50
"	Public building.	Alterations, etc. to P.O., fittings, etc.	J., R. J., J. B. & R. E. Whitley	1,006 00

Sept. 8, 1917.

Statement No. 1 - Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918 - Continued.

Works.	Names of Contractors.		Date of Contract.	Amount.			
PUMP BUILDINGS - Continued							
Ontario - Continued							
Urbide	Pump shed	Coal per ton	Anth., egg	Moore Bros.		\$	cts.
"	"	"	Anth., nut	"		8	80
Walker	"	"	Anth., egg	Alex. George		9	20
Walker	"	"	Anth., egg	Woollatt		9	00
Waterloo	"	"	Anth., egg	W. Hogg		9	25
Wendland	"	"	Anth., egg	O. W. Rice Company		8	75
Wetby	"	"	Anth., egg	E. R. Blow		8	75
Wonghia	"	"	Anth., nut	J. A. Maclean		9	50
W. K.	"	"	Anth., furn	"		9	00
	"	"	Anth., egg	A. Hastings & Son		9	00
Manitoba							
Birds	Experimental farm	Coal per ton	Anth., stove	T. E. Elviss		13	00
"	"	"	Bit., Can...	"		9	75
Post office	"	"	Anth., stove	Barclay & O'Hara		13	00
"	"	"	Bit., Can...	T. E. Elviss		9	75
Immigrant building	"	"	Bit., Can...	Barclay & O'Hara		5	00
"	"	"	Anth., stove	"		13	00
Experimental farm	"	Dairy cattle barn, construction of	"	A. E. Bullock	Sept. 25, 1917	21,959 60	
						and unit prices for any additional work.	
						13,030 90	
						and unit prices for any additional work.	
						7,211 00	
						and unit prices for any additional work.	
						11 35	
						12 15	
						14 65	
						11 00	
						10 70	
Quebec							
Charnan	Pump shed	Coal per ton	Anth., egg	Western Coal Company			
Harpham	"	"	Anth., egg	"			
Hebrant	"	"	Anth., nut	Wm. Chalmers			
"	"	"	Bit.	"			
Finerson	"	"	Anth., furn	Western Coal Company			

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Emerson.....	Post office	Coal per ton—	Bit., Can.....	Western Coal Company.....	11 50
Le Pas.....	"	"	Anth., stove.	Lake Lumber Company.....	14 50
Minnedosa.....	"	"	Anth., Egg.	Western Coal Company.....	11 85
Morden.....	"	"	"	"	11 25
Neepawa.....	"	"	"	"	11 75
"	"	"	"	"	11 90
Portage La Prairie.....	"	"	"	Wm. Richardson.....	12 50
"	"	"	"	"	12 80
"	"	"	"	"	13 65
"	Armoury.	"	Bit., Can	Western Coal Company.....	11 35
"	"	"	Anth., Egg.	Wm. Richardson.....	13 65
"	"	"	Bit.....	Thos. Reid.....	12 00
Selkirk.....	Post office	"	Anth., Egg.	T. H. Patrick.....	9 50
Souris.....	"	"	Bit.....	"	13 45
"	"	"	Anth., Stove.	"	12 50
Stonewall.....	"	"	"	Winnipeg S. & F. Co.....	12 00
St. Boniface.....	"	"	"	Western Coal Company.....	12 45
Virten.....	"	"	"	"	12 00
Winnipeg.....	Immigration hall No. 1	"	"	J. G. Hargrave.....	12 00
"	"	"	"	"	12 00
"	Immigration hospital "3"	"	"	Winnipeg S. & F. Company.....	12 00
"	Post office.	"	"	Western Coal Company.....	12 00
"	Custom house.	"	"	Winnipeg S. & F. Company.....	12 00
"	New examining warehouse.	"	"	J. G. Hargrave.....	12 00
"	"	"	"	Western Coal Company.....	12 00
"	Postal station "B"	"	"	"	12 00
"	"	"	"	Winnipeg S. & F. Company.....	12 00
"	Immigration building.	"	"	Canadian Mathews Gravity Carrier Co., Ltd.	1,375 00
"	Old immigration building.	"	"	W. J. Hood.....	1,088 00
"	Immigration building.	"	"	"	2,373 00
"	Postal station "A"	"	"	"	973 50
"	"	"	"	Otis-Fensom Elevator Company, Limited...	1,140 00
Alberta.					
Athabaska Landing.	Immigration office.	Coal per ton—	Bit., Can.....	Athabaska Fuel Company.....	5 00
Bassano.....	Post office.	"	Galt.....	Atlas Lumber Company.....	8 60
Calgary.....	Examining warehouse.	"	Bit.....	Frank B. Riley.....	3 45
Caster.....	Immigration office	"	Bit.....	A. D. McCormick.....	3 75
Edmonton.....	" building.	"	Lignite.....	Dawson Coal Company.....	4 50
"	Post office.	"	"	"	4 50
Edson.....	Immigration office	"	Bit.....	"	8 10
Entwistle.....	"	"	Anth., Stove.	"	5 75
Grande Prairie.....	Immigration Office.	"	Bit.....	Guthrie & Kitchen.....	7 50
High Prairie.....	Dominion Lands Office.	"	Bit.....	Sturgeon Con. Collieries.....	3 50
Lacombe.....	Experimental Farm.	"	Semi-Anth.....	H. A. Day.....	8 25
"	"	"	Bit.....	"	6 00
"	"	"	Anth., egg.	"	8 25

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Moosejaw.....	Immigration building.....	Coal per ton--Bit-Can.....	W. Hannah.....	Feb. 16, 1918..	8 75
".....	Public building.....	Extension to observat. gallery in..	H. E. Forbes.....	.....	1,028 40
North Portal.....	Immigration building.....	Coal per ton--Anth., nut.....	F. R. Waddington.....	.....	15 50
".....	".....	Bit.....	".....	.....	5 50
Regina.....	Post office.....	Anth., furn.....	Whitmore Bros.....	.....	12 50
".....	Dominion lands.....	".....	".....	.....	12 50
".....	".....	Bit.....	".....	.....	9 25
".....	Immigration hall.....	Bit.....	".....	.....	9 25
".....	Receiver (General's office.....	Bit.....	".....	.....	8 50
".....	Alter. to Customs express off. & ex'g. w'house in Dom. Lands b'ld'g	".....	Wilson & Wilson, Ltd.....	Oct. 5, 1917..	2,785 00
".....	Dominion Lands building.....	Electric elevator in.....	Otis Fensom Elevator Co. Ltd.....	Nov. 7, 1917..	1,195 00
".....	Old Royal Bank building.....	Alterations for post office purposes	Wilson & Wilson, Ltd.....	Dec. 12, 1917..	7,900 00
Rosthern.....	Experimental farm.....	Coal per ton--Bit.....	Reliance Lumber Company.....	.....	9 50
Saskatoon.....	Post office.....	Anth., egg.....	McKenize & Thayer.....	.....	9 50
".....	Immigration building.....	Anth., egg.....	".....	.....	9 50
Scott.....	Experimental farm.....	Anth., egg.....	Beaver Lumber Company.....	.....	11 50
".....	".....	Bit.....	".....	.....	8 50
Sutherland.....	Nursery station.....	Water service.....	The Corporation of the Town of Sutherland.....	May 30, 1917..	11c. p. 100 c. ft.
Unity.....	Immigration building.....	Coal per ton--Bit.....	Unity Lumber Company.....	.....	7 00
Wadena.....	".....	Bit.....	Prince Rupert L. Co.....	.....	8 75
Weyburn.....	Post office.....	Bit.....	Critenden & Gilchrist.....	.....	8 50
Wilkie.....	Immigration building.....	Bit-Can.....	Reliance Lumber Company.....	.....	10 00
".....	".....	Anth., stove.....	".....	.....	15 50
Yorkton.....	Post office.....	Anth., egg.....	C. S. Hiltgen & Company.....	.....	14 00
".....	".....	Bit.....	".....	.....	9 00
British Columbia.					
Ashcroft.....	Temporary Public building.....	Construction of addition to....	Edward Hunt.....	Sept. 26, 1917..	957 00
William Head.....	Supply of water from Sooke Lake, B.C., for "Quarantine sta."	".....	C. H. Rush & Corporation of City of Victoria.....	Feb. 20, 1918..	6c. p. 1,000 galls. during 21 years. (Renewable.)

The following contract was received too late for insertion in last year's (1916-1917) annual report.

Shawinigan Falls ...	Public bld'g.. Concrete paving, repairs to sidewalk, levelling, etc.	Moise Boisvert	Aug. 15, 1915..	438 40
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Continued from April 1, 1917, to March 31, 1918

Continued.

Works.	Names of Contractors.	Date of Contract.	Amount.
HARBOURS AND RIVERS			\$ cts.
St. John West			
Dredging Class "B" per cu. yd.	F. A. Fowle	Feb. 1, 1918	0 30
Green concrete shed No. 5 Rebuilding of . . .	J. A. Grant & Fin. G. Thorne	Nov. 19, 1917	7,000 00
Trucks for Govt. to serve shed No. 16 on west side of Harbour.	Canadian Pacific Railway Company.	April 12, 1917	Actual cost plus commission of 10 p.c. of such costs for overhead charges including original construction and annual maintenance. 0 40
St. John West	I. S. Gregory	Nov. 2, 1917	
Cleaning up deep water berths Class "B" per cu. yd.			
Quebec			
Improvement work (improvements and completion of protection of docks)	Quinlan & Robertson Ltd.	Sept. 24, 1917	Actual cost of said works plus 10 p.c. 3,693 00
Construction of pole line between low and old dry docks . . .	Wright & Lamerzan	" 12, 1917	
Construction of steel plate girder bridge over the shore ways . . .	Dominion Bridge Company, Limited	Nov. 5, 1917	Actual cost of work plus 10 p.c. not to exceed 31,866 00
St. Germain de R.			
Extension of water service to Government wharf . . .	Municipal Council of Town of St. Germain de Rimouski	Feb. 15, 1918	6,000 00
St. Germain de R.	"	" 15, 1918	300 00 p. annum during 10 yrs.

Supplies: No. 1. Contracts let by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—*Concluded.*

Works	Names of Contractors.	Date of Contract.	Amount.
VESSELS, DREDGES AND PLANTS— <i>Concluded.</i>			
supply of fuel for departmental dredging plant for Nova Scotia and New Brunswick, for 1917-1918	Dunlop Tire & Rubber Goods Co. Ltd.	April 18, 1917	
oils and greases for departmental dredging plant for Nova Scotia and New Brunswick, for 1917-1918.	Canadian Consolidated Rubber Co. Ltd.	" 18, 1917	
dredging for departmental dredging plants for Nova Scotia and New Brunswick for 1917-18.	The Imperial Oil Company, Limited	" 18, 1917	
"	The Garlock Packing Co.	" 18, 1917	
"	The General Supply Co. of Canada, Ltd.	" 18, 1917	
"	Brandram-Henderson, Ltd.	" 18, 1917	
"	Goodyear Tire & Rubber Co. of Canada, Ltd.	" 18, 1917	
"	Canadian Consolidated Rubber Co., Ltd.	" 18, 1917	
"	Dunlop Tire & Rubber Goods Co., Ltd.	" 18, 1917	
"	The Canadian Fairbanks Morse Co., Ltd.	" 18, 1917	
"	The Imperial Oil Co., Ltd.	" 18, 1917	
"	Brace McKay & Co., Ltd.	" 18, 1917	
"	Brandram-Henderson, Ltd.	" 18, 1917	
"	Brace McKay & Co., Ltd.	" 18, 1917	
"	Canadian Consolidated Rubber Co., Ltd.	" 18, 1917	
"	Goodyear Tire & Rubber Co. of Canada, Ltd.	" 18, 1917	
"	Dunlop Tire & Rubber Goods Co., Ltd.	" 18, 1917	
"	The Canadian Fairbanks Morse Co., Ltd.	" 18, 1917	
"	Canadian Oil Companies, Ltd.	" 18, 1917	
"	The Garlock Packing Co.	" 18, 1917	
"	The General Supply of Canada, Ltd.	" 18, 1917	
"	Canadian Oil Companies, Ltd.	" 18, 1917	
"	The Imperial Oil Co., Ltd.	" 18, 1917	
"	Goodyear Tire & Rubber Co. of Canada, Ltd.	" 18, 1917	
"	The Imperial Oil Co., Ltd.	" 18, 1917	
"	Campbell Gordon Co., Ltd.	" 18, 1917	
"	R. C. Jamieson & Co., Ltd.	" 18, 1917	
"	The Imperial Oil Co., Ltd.	" 18, 1917	
"	"	" 18, 1917	
New Westminster, B.C., for 1917-1918			
hose	Goodyear Tire & Rubber Co. of Canada, Ltd.	" 18, 1917	
oils and greases	The Imperial Oil Co., Ltd.	" 18, 1917	
packing	Campbell Gordon Co., Ltd.	" 18, 1917	
paints and putty	R. C. Jamieson & Co., Ltd.	" 18, 1917	
fuel oil	The Imperial Oil Co., Ltd.	" 18, 1917	
gasoline and kerosene oil	"	" 18, 1917	

Statement No. 2.—Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918.

Date of transaction.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
April 6	Arthur V. V. V.	His Majesty	Release for all claims, etc., re damages caused by flooding of lots 26, 27 and 28, Range 2, Township of Fabre, District of Timiskaming, Que.	Timiskaming Reservoir Dam.		200 00
22	Provincial Government of New Brunswick	His Majesty	Transfer of wharf site, St. George, N.B.	Government purposes.		Free transfer
23	His Majesty	His Majesty	Grant of tract of land, being part of lot No. 1 Subdivision of lot No. 580, La Malbaie, Que.	Private enterprise.		Free grant.
24	W. S. Lague Co., Ltd.	W. S. Lague Co., Ltd.	Judgment re lands and property conveyed.	Wharf		350 00
25	Wm. G. Rogers	Wm. G. Rogers	Grant of land, being parts of lots Nos. 13 and 14, Block "O" Gananoque, Ont.	Private enterprise.	60 ft. x 60 ft.	2,510 00
25	His Majesty	His Majesty	Release for all claims, etc., re damages caused by flooding of lot No. 52, Township of Guigues, Que.	Timiskaming Reservoir Dam.	47 acres	17 00
May 1	Mrs. Eugene F. F.		Conveyance of land, St. Front de La Malbaie, Que.	Government purposes.	101 25 feet	Exchanged for parcel of land transferred to her by the Crown Free transfer.
5	Department of Public Works	Department of Militia and Defence	Temporary transfer of Martello Hotel, St. John, N.B.	Quarters for troops		"
8	Provincial Government of New Brunswick	Provincial Government of New Brunswick	Transfer of water lot, St. Nicolas River, South Branch, N.B.	Wharf	0 07 acres	"
9	Provincial Government of New Brunswick	Provincial Government of New Brunswick	Transfer of wharf with site thereof and approach thereto, Leemerville, Deer Island, N.B.	Government purposes.	23,400 sq. ft.	"
12	Haley and Spruce Co., Ltd.	His Majesty	Transfer of part of lot No. 100, Group 1, Haley, B.C.	Wharf	0 28 acres.	11 00
14	City of Toronto		Sale of land, most westerly 78 feet through out of lots Nos. 36, 37 and 38, Block 13, Township of Leamington, Sask.	Site for Public Building		
18	Hudson Bay Company	His Majesty	Sale of lot No. 1 Block 4, Dunvegan, Alta.	Telegraph offices		175 00
25	Provincial Government of New Brunswick	Provincial Government of New Brunswick	Transfer of water lot on western side of base of River, N.B.	Government purposes.	0 1 acres	Free transfer.

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"	29	Notice of Expropriation		Expropriation of land being part of lot No. 44, Range IV and lot No. 44, Range III, Township of Guigues, Timiskaming, Que.	Timiskaming Dam.	Reservoir	119 96 acres.	
"	30	His Majesty	Toronto Harbour Commissioners	Quit claim, 1st re water lot "B," north of new western channel, and 2nd re water lot "C."	Harbour improvements		Lot "B" 43 7 acres-Lot "C" 9 70 acres.	
"	31	Notice of Expropriation		Expropriated land at township of Guigues, Timiskaming, Que.	Timiskaming Dam.	Reservoir	35 68 acres.	
June	15	Provincial Government of New Brunswick.	Government.	Transfer of wharf with site thereof and approach thereto, Bayside, N.B.	Government purposes		14,500 sq. ft.	Free transfer.
"	15	"	"	Transfer of wharf with site thereof and approach thereto, Beaver Harbour, N.B.	"		19,200 sq. ft.	"
"	16	Frederick C. Dance, et ux	His Majesty	Sale of part of lot No. 8, Block 3, Plan 5A, Shelburne, Ont.	Public Building Drainage			150 00
"	20	Provincial Government of New Brunswick.	Government.	Transfer of wharf with site thereof, Kennebecas Island, N.B.	Government purposes		17,070 sq. ft.	Free transfer.
"	20	"	"	Transfer of wharf with site thereof, Bayswater, N.B.	"		13,600 sq. ft.	"
"	21	The Grand Trunk Pacific Railway Company.	His Majesty	Conveyance of a strip of land, 30 feet in width; forming part of portion of Fort William, Ont., Indian Reserve.	Kaministiquia and Mission River Impts.		13 85 acres.	1 00
"	22	Provincial Government of New Brunswick.	Government.	Transfer of Hatfields wharf, Springfield, N.B.	Government purposes		9,236 sq. ft.	Free transfer.
July	16	Notice of Abandonment	"	Transfer of water lot on Moulies River, N.B.	Landing wharf			"
"	28	His Majesty	Ottawa Car Mfg. Co., Ltd.	Abandonment of land, being lot No. 14, north side of Beach road, Windsor, Ont.	Government wharf			700 00
"	28	Estate Edouard Ruel	His Majesty	Sale of Bollock motor generator set				1,200 00
Aug.	17	Government of Prince Edward Island.	Government.	Sale of lot No. 5 east part of village of Lauzon, Que.	Lauzon Dry Dock.			Free transfer.
Sept.	13	Alex. Chaya	His Majesty	Transfer of that piece of land and land covered by water near north eastern end of Ferro road, Cardigan South, P.E. I.	Government purposes			100 00
"	14	City of Quebec	"	Release for all claims, etc., for damages caused by flooding of lot No. 41, R. II, Tp. of Fabre, Timiskaming, Que.	Timiskaming Dam.	Reservoir	106 acres.	Free grant.
"	26	Notice of Expropriation		Conveyance of land being part of lot No. 513 64, parish of St. Roch Nord, Que.	St. Charles River Improvements.		6,698 sq. ft.	
"	29	D. G. Stewart	His Majesty	Expropriation of land being lot No. 44, Natashquan, Que.	Site for wharf.		6 acres.	
Oct.	1	Sarah E. Leacy (widow).	"	Release for all claims, etc., re contract for revetment wall, Burlington, Ont.	Site for Post Office			10,441 59
"	2	Notice of Abandonment		Grant of part of village lot No. 1, R. I of village lots, Cardinal, Ont.	Site for wharf			4,000 00
"	17	Notice of Expropriation		Abandonment of land on east side of Natashquan harbour, Que.	Quinze Lake Reservoir		10 acres.	
Nov.	7	Katherine A. McKay (widow).	His Majesty	Expropriated land, Tp. of Latulippe, Pontiac Co., Que.	Site for Pub. Bldg.		12,740 sup. ft.	5,037 14

Date of conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price.
1917						cts.
Nov. 7	His Majesty David Philip Parker.	J. A. Carignan, His Majesty	Sale of building at Grand'Mère, Que. Right and privilege to dig and excavate a trench across, under and through a portion of his land, Picton, Ont.	Private enterprise Drainage of Pub. Bldg.	.....	860 00
12	The Watsons Engineering Works, Ltd. E. J. Le Bellet	"	Bill of sale re steam tug "Donnelly Symons"	"	.....	1 00
17	"	"	Release for all claims for damages caused by flooding of lot No. 42, R. IV, Tp. of Guigues, Timiskaming, Que.	Timiskaming Reservoir Dam.	71 46 acres.	71 46
20	Arthur McLaren	"	Release for all claims for damages caused by flooding of Lake Quinze, Que.	"	.....	250 00
21	John David Pye and Stella May Pye	"	Sale of land, Exum Station, N.S.	Site for wharf.	0 57 acres.	75 00
21	Eugene St. Pierre	"	Release for all claims for damages caused by flooding of lot No. 42, R. IV, Tp. of Guigues, Timiskaming, Que.	Timiskaming Reservoir Dam.	50 03 acres.	50 00
27	E. V. Doherty	"	Purchase and removal of old shed standing on post office property at Cardinal, Ont.	"	.....	77 50
29	His Majesty	Thomas Lawson & Sons, Ltd.	Sale of scrap brass and wrought iron, Victoria Island shipyard Ottawa, Ont.	"	.....	1,342 10
Dec. 17	Certified Title	"	Certificate of title re portion of lot No. 57, St. James parish, Winnipeg, Man.	Drill Hall Site.	.....	Exchange of property.
"	Certificate of Ownership	"	Certificate of ownership re portion of block "C" and lots Nos. 328, 329, 332, 333, 336, 337, 340 and 341 on north side of Melville St., and lots Nos. 330, 335, 338, 339 and 342 on south side of Scott St., New Liskeard, Ont.	Timiskaming Reservoir Dam.	.....	.....
24	Notice of Expropriation.	"	Expropriation of land being part of lot No. 8, 1st Con., Tp. of Neelburg, Port Williams, Ont.	Timiskaming Reservoir Dam.	2 61 acres.	.....
31	Alfred LeBellet	His Majesty	Sale of part of lot No. 5, Village of Lauzon, Que.	Dry Dock	28,555 sq. ft. eng. measure.	8,747 49

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1918.	John L. Murphy, et al.	His Majesty	Grant of land being composed of lot No. 14 on north side of Sandwich St., Windsor, Ont.	Government Wharf	1 00
Jan. 2					
" 4	Dept. of Indian Affairs	Dept. of Public Works.	Transfer of portion of lot No. 29, Richibucto Indian Reserve, N.B.	Mouliès River Wharf	Free transfer.
" 17	Dept. of Public Works	Corporation of Village of Port Credit.	Permission to improve portion of roadway running through Government property, Port Credit, Ont.		
" 19	Notice of Abandonment		Abandonment of land forming part of lots Nos. 2, 4 and 5, Village of Lauzon, Que.		
" 28	Certificate of Title	His Majesty	Certificate of title re lot No. 195, being portion of lots Nos. 57 and 58, St. James parish, Winnipeg, Man.	Drill Hall Site	Exchange of property.
" 28	Pacific Telephone & Telegraph Co.	Govt. Telegraph Service.	Agreement re operation of line from Osquoos to Kamloops, B.C., via Fairview, Hedley, Princeton and Nicola, B.C.		
" 29	Certificate of Title		Certificate of title re portion of lot No. 57, St. James parish, Winnipeg, Man.	Drill Hall Site	Exchange of property.
Feb. 6	Notice of Expropriation		Expropriation of westerly $\frac{1}{2}$ of lot No. 12 and lot No. 11, and easterly 2 ft. of lot No. 10, northerly side of Albert St., Ottawa, Ont.	Site for Office Building.	29,799 sq. ft.
" 6	Joseph Paquin	His Majesty	Release for all claims for damages caused by flooding of lot No. 13, R. IX, Tp. of Latulippe, Timiskaming, Que.	Quinze Lake Dam	20.15 acres.
" 7	William Hamel	"	Release for all claims for damages caused by flooding of lot No. 1, R. II, Tp. of Latulippe, Timiskaming, Que.	Timiskaming Reservoir Dam.	4.10 acres.
" 18	Bruno Beaudet	"	Release for all claims for damages caused by flooding of lot No. 36, R. V, Tp. of Latulippe, Timiskaming, Que.	Quinze Lake Dam	86.04 acres.
" 20	Chas. Rhéault	"	Release for all claims for damages caused by flooding of lot No. 5, R. IX, Tp. of Latulippe, Timiskaming, Que.	Timiskaming Reservoir Dam.	17.75 acres.
" 20	J. A. Fugère (P.P.)	"	Release for all claims for damages caused by flooding of lot No. 21, R. VII, Tp. of Latulippe, Timiskaming, Que.	"	4.35 acres.
" 21	James K. Green	"	Release for all claims for damages caused by flooding of part of lot No. 9, Tp. of Casey, Timiskaming, Ont.	"	38.5 acres.
" 25	Wm. R. Reay	"	Release for all claims for damages caused by flooding of lot No. 3, on east side of Lake Shore road, Tp. of Dymond, Ont.	"	
" 27	North Coast Land Co., Ltd.	"	Sale of lot No. 15, Block 20, Telkwa, B.C.	Site for Telegraph Office.	
Mar. 4	Omer Hamel	"	Release for all claims for damages caused by flooding of lot No. 1, R. I, Tp. of Latulippe, Timiskaming, Que.	Quinze Lake Dam	68.25 acres.
" 11	Ovila Brosseau	"	Release for all claims for damages caused by flooding of lot No. 29, R. VI, Tp. of Latulippe, Timiskaming, Que.	"	88.80 acres.

STATEMENT No. 2.—Properties purchased or sold by the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918.—*Concluded.*

Date of conveyance.	Vendors.	Purchasers.	Description of Property.	For what purpose.	Area.	Price. \$ cts.
1918						
12	Not yet Abundant		Abandonment of easterly 2 feet of lot No. 10 on south side of Queen St., and easterly 2 feet of lot No. 10 on northerly side of Albert St., Ottawa.		396 sq. ft.	
16	His Majesty	Canadian Pacific Railway Co.	Grant of land in vicinity of Last Mountain Lake, Sask.	Right of way of Regina and Bulyea Branches of C.P.R. Co.		
20	Wong Jooi	His Majesty	Surrender of lease and release for all claims for damages caused by removal from lots Nos. 10 and 11, north side of Albert St., Ottawa, Ont.	New Government Office Building.		50 00

The following items were received too late for insertion in last year (1916-1917) annual report.

1901						
Jan 27	Thomas Smith	His Majesty	Sale of portion of river lot No. 103, between River road and Red River, Man.	St. Andrews Rapids Lock and Dam.		
1910						5,463 56
Nov 15	Charles Hells Albinger Co. Ltd.		Receipt in full settlement of all claims re Winnipeg, Man., drill hall contract.			
1916						
May 15	Corporation of Tiber		Transfer of portion of s.w.4 of Sect. 20, Tp. 3, R. 16, Ninette, Man.	Site for wharf		Free transfer.
Dec 4	La Cie des Pores Offits d. Marie Immaculee.	His Majesty	Release for all claims for damages caused by flooding of lands between lots Nos. 1 582, 1 583, Ville-Marie, Que.	Timiskaming Reservoir Dam.		160 00
	La Cie des Pores		Release for all claims for damages caused by flooding of lot No. 581, Ville-Marie, Que.	"		90 50

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1917.									
Jan. 16.	J. L. Légare	"	Grant of west ½ of lot No. 7, block 5, Willow Bunch, Sask.	Telegraph Office.	200 ft. x 100 ft.	Free grant.	
Feb. 27.	Joseph Pelchat	.....	"	.....	Release for all claims for damages caused by flooding part of lot No. 46, R. 2, Tp. of Fabre, Timiskaming, Que.	Temiskaming Reservoir Dam.		120 00	
Mar. 6.	Margaret Hunting	.....	"	.....	Release for all claims, etc., in re 1st that certain parcel of land being part of lot No. 24, on n.w. cor. of John and Main Sts, and 2nd, of certain parcel of land being part of lot No. 24, on w. cor. of John and Main Sts, Hamilton, Ont.	Site for Public Building.		85,330 00 plus interest 5%.	
" 20.	Notice of Expropriation	.....	"	.....	Expropriation of land at Port Hastings, N.S.	Road to wharf	1 acre		
" 28.	Cyprien Descargues et al.	.....	His Majesty	..	Institution of servitude on part of lot No. 37, R. 3, Tp. of Guigues, Timiskaming, Que.	Temiskaming Reservoir Dam.	22½ acres	370 00	

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918.

Date of Lease.	Lessee.	Description of Property.	For what purpose.	Duration of Lease.	Rental.
1917.					\$ cts.
Apr. 4.	La Banque Nationale.	Lease of room Nos. 68 on 5th and room No. 52 on 4th floor of building, Rideau st., Ottawa, Ont.	National Service.....	From month to month from Mar. 25, 1917.	125 p. month. (monthly).
" 9	Nova Scotia Trust Co., Ltd.	Lease of 125 sq. ft. on 2nd floor of "Board of Trade Bldg," Calgary, Alta.	Inspector of Weights and Measures.	1 year from Apr. 30, 1917.	361.25 p. ann.
" 14	Lowe-Martin Company, Limited.	Lease of four floors of "Lowe-Martin Bldg," 175 Nepanet, Ottawa, Ont.	Militia and Defence.....	5 years or to 200,000 sq. ft.	102 p. ann. per sq. ft.
" 16	Flint's Co. Ltd.	Lease of building at Weymouth, N.S.	Post Office	1 year from June 1, 1917.	260 p. ann.
" 19	Okanagan Telephone Co.	Rental of space on Co's pole line, Vernon to Penticton, B.C.	Gov't purposes.....	During pleasure (84 miles at \$4 per mile.)	336 p. ann.
" 24	United Storage Company, Ltd.	Lease of 3rd floor of building, cor. Finnett & Lewis sts., Ottawa, Ont.	Militia and Defence.	1 year from Apr. 17, 1917.	1,520 p. ann.
" 28	La Co. d'Imprimerie et de Publications de Trois-Rivières.	Lease of 170 sq. ft. on 1st floor of bldg No. 27 Platon st., Three Rivers, Que.	Public Works Dept.....	From 1st May '17 and thereafter from month to month.	20 p. month (monthly.)
" 30	Jarvis Walter McLellan...	Lease of two rooms and vault in bldg 91 Prince William st., St. John, N.B.	Naval Service Dept.....	From 1st May '17 to 1st Dec. '17.	20.84 p. month (monthly.)
May 1	Lease of a two-story frame bldg, Donnelly Hall, (Calke), Alta.	Lease of a two-story frame bldg, Donnelly Hall, (Calke), Alta.	Donnelly Hall.	3 yrs. from 1st May, 1917.	50 p. month.
" 1	The Phoenix Insurance & B.C. Ry. Company.	Lease of lots Nos. 22, 23 and 24, block I, Spirit River, Alta.	Block I, Innng. Hall.	5 yrs. from 1st May, 1917.	5 p. ann.
" 8	The Royal Bank of Canada	Lease of ten rooms on top floor and part of basement in bldg, cor. Sparks & Metcalfe sts., Ottawa, Ont.	Geological Survey.	1 yr. from 7th Apr., '17.	3,056.50 p. ann. and 6 on cost of vault.
" 11	C. Macdonald & Co.	Lease of 3rd, 4th and 5th floors of "Standard Bank Bldg," Sparks st., Ottawa, Ont.	Auditor General	5 yrs. from date of occupation.	5,670 p. ann.
" 11	Canada Life Assurance Company	Lease of rooms on 3rd, 4th and 5th floors of "Canada Life Bldg," Ottawa, Ont.	National Service.....	1 yr. from 8th Apr. '17.	188.62 p. mth.
" 14	W. B. Ry. & S. T. Ry.	Lease of offices 200 and 208 on lots 23 and 24, block 14, Melrose Hill, Alta.	Immigration.....	1 yr. from 1st June, '17.	23 p. month.
" 16	Richard Ash & Co.	Rental of premises on corner of International Boundary and Mainline Road, Blaine-Wash., Douglas, B.C.	Innng. Inspector.....	...	3 p. month.
" 19	Albert P. ...	Lease of 302 sq. ft. of lot No. 67, St. Felix de Valois, Que.	Post Office.....	1 yr. from 1st Jan. '17.	125 p. ann.

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"	25.....	W. G. Miller.....	His Majesty.....	Lease of shop on Main st., St. John's, N.S.	"	3 yrs. from 1st May, '17.	600 p. annum.
"	29....	Northern B. C. Development Company,	"	Lease of ground floor with rooms 2, 3, 4, 5, 6, 7, 8, 9, 15 and 16 on 1st floor of Federal block, Prince Rupert, B.C.	Depts. of Federal Gov't.	3 yrs. from 1st June, '17.	540 p. month.
"	30....	Public Works Department.	Dept. of Militia and Defence.	Lease of 2nd floor of Immig. bld'g, Pier No. 2, Halifax, N.S.	Gov't purposes.....	During occupation.	
June	8.....	The Edmonton, Dunvegan & B. C. Ry. Co.	His Majesty.....	Lease of lots 19, 20 and 21, Block 2, Grande Prairie, Alta.	Immig. Hall.....	5 yrs. from 1st May, '17.	5 per annum.
"	11....	Ferdinand Leduc & Cyprien Fortier.	"	Lease of ground floor of two storey bld'g, Beauharnois, Que.	Post Office.....	5 yrs. from date of occupation.	420 p. annum.
"	13....	Eastern Trust Company....	"	Lease of about 216 sq. ft. on 3rd floor of "McCurdy Bld'g," Halifax, N.S.	Fisheries Inspector.....	1 yr. from 1st Aug. '17.	175 p. annum.
"	14....	Mrs. Clara Kirboffer.....	"	Lease of two adjoining rooms in bld'g at Brandon, Man.	Custs. King W'house.....	5 yrs. from 15th Aug. '17.	1,800 p. annum.
"	22....	La Patrie, Limited.....	"	Lease of east 1/2 of ground floor of bld'g, St. Catherine st., East, Montreal, Que.	Postal Station "N".....	5 yrs. from date of occupation.	6,814.80 per annum.
"	27....	Union Bank of Canada.....	"	Lease of rooms No. 801 and 803 in bld'g cor. Main st. and William ave., Winnipeg, Man.	Insp. of War Profits Taxation.	From 1st July '17 to 31st Dec. '18.	50.25 p. month.
"	28....	Realty of Ottawa, Limited.	"	Lease of "Free Press Bld'g," Sparks st., Ottawa, Ont.	Dept. of Mines.....	5 yrs. from 5th Apr., '17.	7,225.90 per annum.
"	29....	H. N. Bate & Sons, Limited.	"	Lease of bld'g, Slater st., Ottawa, Ont.	Militia and Defence.....	3 yrs. from 15th June, '17.	16,500 p. ann.
July	3....	His Majesty.....	Anglo-American Telegraph Co.	Agreement re payment of annual subsidy for operation of telegraph line in Prince Edward Island.		5 yrs. from 3rd July, '17.	5,000 p. ann.
"	3....	His Majesty.....	Prince Edward Island Telephone Co.	Agreement re operation of telephone system in Prince Edward Island.		5 yrs. from 3rd July, '17 and to continue thereafter.	
"	5....	The Excelsior Life Insurance Company.	His Majesty.....	Lease of room No. 302 on 3rd floor of bld'g s. w. cor. of Adelaide st., Toronto, Ont.	Food Controller.....	From month to month from July 6, '17.	63 per month (monthly.)
"	13....	Mrs. Loretta Ann Osment.	"	Lease of the whole of 2nd floor and part of 1st floor of bld'g, Main st., Indian Head, Sask.	Dept. of Interior.....	1 yr. from 1st Sept., '17.	43 per month.
July	14....	Thos. H. Fortier.....	"	Lease of two rooms on ground floor of buildings, George St., Annapolis Royal, N.S.	Insp. of British Immigrant children.	1 year from 1st Sept., 1917.	180 p. annum.
"	17....	W. M. Birks, J. H. Birks and G. W. Birks.	"	Lease of room No. 5 and vault on 1st floor of "Birks Building," Sparks St., Ottawa, Ont.	Immigration Inspector...	From 1st Sept., 1917, to 30th Sept., 1921.	343.14 p. ann.
"	18....	The Berlin Rink and Auditorium Co., Ltd.	"	Lease of part of ground floor of "Rink and Auditorium Block," Queen St. South, Kitchener, Ont.	Customs Exam'g Warehouse.	2 years from date of occupation.	120 p. month.
"	19....	Alexander Mullin.....	"	Lease of ground floor and basement of building cor. Bloor and Markham Sts., Toronto, Ont.	Postal Station "E".....	1 year from 1st Aug., 1917.	1,440 p. ann.
"	21....	His Majesty.....	Corporation of Village of Port Credit.	Lease of parcel of land on n.e. side of harbour, Port Credit, Ont.	Municipal Building, &c.	During pleasure.	1 per annum.

STATEMENT No. 3.—Properties leased to and from the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Date of Lease	Lessor	Lessee	Description of Property.	For what Purpose.	Duration of Lease.	Rental.
1917						\$ cts.
1	Dodge Tine and Rubber Works Co., Ltd.	His Majesty	Lease of two-story building Nos. 306, 308 and 310 Sparks St., and Garage, No. 309 Queen St., Ottawa, Ont.	Insp. of Artillery Stores	From date of occupation to end of present war.	5,100 p. ann.
2	J. G. Patterson & Co.	"	Lease of 2nd floor of "Bank St. Chambers," cor. Bank and Albert Sts., Ottawa, Ont.	Food Controller and staff.	1 year from date of occupation.	2,500 p. ann.
3	The Notre Dame Investment Co., Ltd.	"	Lease of offices 705, 706, 707, 708, 709 and 710 in building on Notre Dame Ave., Winnipeg, Man.	Public Works Dept.	24 months from 1st Aug., 1917.	1,500 p. ann.
4	His Majesty	The Edmonton Children's Aid Society.	Lease of lots Nos. 14, 15, 16 and 17, Block 51, Strathcona, Alta.	Home for Children	1 year from 1st Aug., 1917.	1 p. annum (renewable).
5	Imperial Canadian Trust Co.	His Majesty	Lease of suites Nos. 112 and 415 in building cor. 21st St. and 1st Ave., Saskatoon, Sask.	Supt. of Railway Mail Service.	1 year from 1st Sept., 1917.	631.20 p. ann.
6	Ephraim Humphreys.	"	Lease of room on ground floor with use of basement in building, Trotton, N.S.	Post Office	5 years from 22nd March, 1918.	600 p. annum (renewable)
7	His Majesty	The Municipal Council of the Town of Lacombe.	Lease of lot No. 240 A and part of lot No. 235, Lacombe, Que.	"	During pleasure.	1 p. annum.
8	Royal Bank of Canada.	His Majesty	Lease of 1,600 sq. ft. on ground floor and 450 sq. ft. of basement in building, cor. Dalhousie and York Sts., Ottawa, Ont.	Printing Bureau and Stationery Branch.	From date of occupation to 2nd Jan., 1919.	1,321.60 p. ann. (renewable)
9	Charles Edward Allyn	"	Lease of ground floor of building, St. John St., Quebec, Que.	Postal Station	5 years from date of occupation.	2,100 p. ann.
10	His Majesty	Leonard Allyn Dadd.	Lease of property known as "Government Reserve," York, P.C.	Private purposes	10 years from 1st Oct., 1917.	5 p. annum.
11	Andrew Holland.	His Majesty	Lease of premises Nos. 396-404 Wellington St., Ottawa, Ont.	Storage of Exhibits—Agriculture.	From month to month from 15th August, 1917.	210 p. month (monthly).
12	R. L. & R. Blackburn.	"	Lease of suites Nos. 707 and 710 and vault on 7th floor of "Union Bank Building," Ottawa, Ont.	Board of Pension Commissioners of Canada.	2 years and 107 months, from 1st March, 1917.	5 p. month.
13	Imperial Canadian Trust Company	"	Lease of suite No. 212 in building cor. 21st and 1st Ave., Saskatoon, Sask.	1st Inland Revenue Dept.	1 year from 1st Nov., 1917.	486 per ann.

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"	24.....	Robt. L. Blackburn.	His Majesty.....	Lease of 5th, 6th and 7th floors of "Plaza Building," Rideau St., Ottawa, Ont.	Militia & Defence.	1 year from 24th Aug., 1916.	8,519 p. ann.
"	27	Alexandria Realty Co., Ltd.	"	Lease of two offices and storage room for fuel in "Syndicate Block," Emerson, Man.	Immigration.....	From month to month.	5 p. month (monthly).
"	31... ..	Sydney Post Publishing Co., Ltd.	"	Lease of rooms 4a and 3 in "Post Building," Dorchester street, Sydney, N.S.	Insp. of Fisheries.....	1 year from 1st Oct., 1917.	360 p. annum.
Sept.	1	James H. Thompson . . .	"	Lease of premises near "Federal Building," Prince Rupert, B.C.	Examining Warehouse..	3 years from date of occupation.	1,200 p. ann. (renewable).
"	1.....	Northern B. C. Development Co., Ltd.	"	Lease of room on 2nd floor of "Federal Building," Prince Rupert, B.C.	Steamship Inspector . .	From month to month from 1st Oct., 1917.	17 p. month.
"	6	The Topley Company.....	"	Lease of two top floors in building Nos. 130-132 Sparks St., Ottawa, Ont.	Military Service Branch of Justice Dept.	From month to month from 7th Sept., 1917.	100 p. month.
"	6	Wilson Bros.....	"	Lease of premises on n.e. corner of 3rd Ave. and 22nd St., Saskatoon, Sask.	Dominion Lands Office..	1 year from 1st Oct., 1917.	200 p. annum.
"	13	His Majesty	Quinlan & Robertson.	Lease of parts of lots Nos. 513 and 514, Parish of St. Roch (St. Charles River), Que.	Private purposes.....	18 months from date of occupation.	1 p. annum.
"	19	Canada Life Assurance Company.	His Majesty...	Lease of premises Nos. 43 and 44 in company's building, Sparks St., Ottawa, Ont.	Fuel Controller.	Month to month from 14th Aug., 1917.	39.39 p. month (monthly).
"	20	Robt. L. Newman	"	Lease of four rooms in "Stephen's Block," Prince Rupert, B.C.	Insp. of Fisheries (Dept. of Naval Service).	1 month from 22nd June, 1917, and thereafter from month to month.	50 p. month (monthly).
"	21.....	D. M. Finnie and Wm. D. Morris.	"	Lease of premises in "Old Union Bank Building," Wellington St., Ottawa, Ont.	Federal Government....	5 years from 20th Nov., 1917.	4,000 p. ann.
"	24	A. E. Sjoquist.....	"	Lease of part of ground floor and two vaults in building n.e. cor. of 4th Ave. and Seymour St., Kamloops, B.C.	Dominion Lands & Crown Timber Serv.	3 years from 1st Sept., 1917.	125 p. month.
"	25.....	Norlite Realty Company, Limited.	"	Lease of building on lots Nos. 11 and 12, south side of Wellington St., Ottawa, Ont.	Government office.....	5 years from date of occupation.	30,000 p. ann.
"	26.....	R. L. & R. Blackburn.....	"	Lease of additional space in basement of "Union Bank building," Ottawa, Ont.	Interior Department...	From 21st Aug. '17 to 16th July '18.	87.20 p. annum
"	26	R. L. & R. Blackburn.....	"	Lease of room No. 414 in "Union Bank building," Ottawa, Ont.	Dept. of External Affairs	1 yr. from 9th Nov. '17.	371 p. annum.
"	29	J. H. Cameron & Annie M. Johnstone.	"	Lease of 2 rooms in building on lots Nos. 24 and 25, Block 156, Saskatoon, Sask.	Insp. of Weights and Measures.	1 yr. from 11th Nov. '17.	60 p. month
Oct.	1	The Canadian Pacific Railway Company.	"	Lease of lots Nos. 17 and 18, Block 1, Townsite of Coutts, Alta.	Immigration	21 yrs. from 1st Oct. '17.	1 p. annum.
"	1	Jno. D. McArthur & The Edmonton Dunvegan & B.C. Railway.	"	Lease of lots Nos. 28, 29 and 31, Block 10, River Lot 7, Peace River, Alta.	Immigration Hall.	5 yrs. from 1st Oct. '17.	5 p. annum.
"	3	Imperial Canadian Trust Co.	"	Lease of suites Nos. 512 and 513 in building cor. 21st. st. and 1st avenue, Saskatoon, Sask.	Supt. of Ry. Mail Service	1 yr. from date of occupation.	885 p. annum.

Statement No. 2.—Properties leased to and from the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918—Continued.

Page of lease.	Lessors.	Description of Property.	For what purpose.	Duration of lease.	Rental.
1917.					\$ cts.
Oct. 9	J. A. Yeager	Lease of space on ground floor of building, Swift Current, Sask.	Post Office	2 yrs. from 20th Nov. '17.	150 p. annum.
11	R. L. & R. Blackburn	Lease of rooms 305 in "Union Bank building," Ottawa, Ont.	Interior Department	from date of occupation to 16th July '17 (Floor area 167 sq. ft.)	1 00 p. sq. ft. p. annum
18	Imperial Realty Company, Limited.	Lease of rooms in "Canadian & Militia buildings" on Slater st. and premises in building on Queen st., Ottawa, Ont.	Militia and Defence	5 yrs. from 1st May '18.	88,711.84 p. annum.
18	A. B. Tait	Lease of rooms in building, Stanstead Place, Que.	Post Office	3 yrs. from 1st Aug. '17.	113 p. annum.
Nov. 2	J. Paul Tait	Lease of building No. 35, Chemin Ste Foye, Quebec, Que.	Canadian Postal Station	5 yrs. from 1st Sept. '17.	250 p. annum.
5	Archibald Galbraith	Lease of two stores on ground floor of building on s. 3 of lot 8, Block 49, Swift Current, Sask.	Interior Department	1 yr. from 17th Nov. '17.	120 p. month.
7	Canadian Bank of Commerce	Lease of 3 rooms in building, Revelstoke, B.C.	Chf. Fur Ranger of Interior Department	1 yr. from 16th Dec. '17.	40 p. month.
15	Wm. M., John H. & G. W. Birks.	Lease of rooms 614, 615, 616, 617 and 618 on 6th floor of building, Vancouver, B.C.	Supt. of Bridges	1 yr. from 1st Dec. '17.	900 p. annum.
16	Notre Dame Investment Company.	Lease of office in Co's building, Winnipeg, Man.	Insps. of heating and plumbing	from month to month from 15th Nov. '17.	30 p. per month (monthly.)
19	The Canadian Life Assurance Co.	Lease of rooms Nos. 13 and 14 on 1st floor of building, Ottawa, Ont.	Chf. Medical Off. Housing Branch.	1 yr. from date of occupation.	480 p. annum.
20	Alide Plouffe	Lease of premises, St. Felix de Valois, Que.	Post Office	1 yr. from 1st Jan. '18.	125 p. annum.
27	The Great Trunk Railway Company.	Lease of certain lands contained in lot No. 14, fronting channel bank of Detroit river, Windsor, Ont.	Govt. Dock Site	21 yrs. from 1st Nov. '12.	70 p. annum.
27	Harold Hasard	Lease of room on 1st floor of "Cameron Block" Richmond st., Charlottetown, P. E. I.	Insps. of Dredges	1 yr. from 23rd Oct. '17.	150 p. annum.
27	John Fournont Smith	Lease of the eastern portion of ground floor and basement of building on lot 13, Block 20, Victoria st., Kamloops, B.C.	Post Office	5 yrs. from 1st Sept. '17.	1,200 p. annum.

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"	29.....	Hood Bros.....	"	"	Lease of rooms in building No. 519 Pender st., Vancouver, B.C.	Railway Commission ..	from 20th Nov. '17 to 31st Mar. '18.	22 per month.
"	30.....	The Royal Bank of Canada	"	"	Lease of ten (10) offices on top floor with portion of basement and vault in building cor. Sparks and Metcalfe sts., Ottawa, Ont.	Geological Survey Branch Dept. of Mines.	1 yr. from 7th April '18.	3,081.50.
Dec.	1.....	Canadian Pacific Railway Company.	"	"	Lease of room on ground floor of "Station building," Regina, Sask.	Postal purposes.....	1 yr. from 1st Dec. '17.	3,240 p. annum.
"	1.....	Jarvis Verner McLellan..	"	"	Lease of 7 offices and vaults in "Stockton building," 91 Prince William st., St. John, N. B.	Naval Transport Officer	month to month from date of occupation.	45.85 p. month (monthly.)
"	3.....	The Chester Thompson Company, Limited.	"	"	Lease of ground floor with room in basement of building near cor. of 23rd st. and 2nd ave., Saskatoon, Sask.	Customs Department ..	3 yrs. from 12th Dec. '17.	350 p. month.
"	4.....	James Hope & Sons.	"	"	Lease of 3rd floor of building, cor. Sparks and Elgin sts., Ottawa, Ont.	Railway Mail Service...	2 yrs. from 29th Jan. '18.	2,500 p. annum.
"	8.....	Wm. James Southam.	"	"	Lease of rooms Nos. 806 to 809 inclusive on 8th floor of "Herald building," Calgary, Alta.	Railway Commission...	1 yr. from date of occupation.	105 p. month.
"	12.....	The Bell Telephone Co. of Canada.	"	"	Agreement <i>re</i> leasing to Government one galvanized iron metallic circuit on Co's poles between limits of City of Quebec and Notre Dame des Laurentides, Que.	Government purposes ..	1 yr. from 20th Sept '17 and to continue and remain in force from yr. to yr. until cancelled	104 p. annum.
"	14.....	Leon R. Belanger.	"	"	Lease of room in building, Edmundston, N. B.	Immigration.....	month to month from 1st July '17.	5 per month (monthly.)
"	20.....	J. L. & Wm. J. Hopwood.	"	"	Lease of 3 rooms with front and rear entrance on ground floor and lavatory in basement of building, 366 Water st., Peterborough, Ont.	Weights and Measures...	1 yr. from 1st Jan. '18.	250 p. annum.
"	27.....	Robert Kerr.	His Majesty...	"	Lease of 1,050 sq. ft. of "Kerr building," Le Pas, Manitoba.	Lands and Mining Recorder—(Int. Dept).	1 year from 1st Feb. 1918.	50.00 p. month
1918.								
Jan.	4.....	Canada Cement Company, Limited.	His Majesty ...	"	Lease of 2 bins in "Stock House building," Pointe aux Trembles, Quebec.	Storage of cement for Parliament building.	1st Jan. 1918 to 1st Sept. 1918.	Per bbl. of cement 2c. per month.
"	7.....	Hope Realty Limited.....	"	"	Lease of rooms Nos. 509, 510 and 511, in building No. 63 Sparks st., Ottawa, Ont.	Director of Public Information.	From month to month from date of occupation.	40.00 p. month (monthly).
"	7.....	C. Jackson Booth.....	"	"	Lease of 2,426 sq. ft. 10 inches on 1st and 2nd floors of "Standard Bank building," Sparks st. Ottawa, Ont.	Auditor General Staff..	From 25th Oct. 1917 to end of war.	1,820.12 per annum.
"	8.....	R. L. & R. Blackburn.....	"	"	Lease of stores Nos. 49 and 51 with 1st floor over store No. 51 Bank st., Ottawa, Ont.	Recruiting offices	From 14th Dec. 1917 to 1st May 1918.	100.00 per month.

Inventory No. 3. Properties leased to and from the Department of Public Works of Canada, from April 1, 1911, to March 31, 1918. Continued.

Page	Lessee	Description of Property.	For what purpose.	Duration of Lease.	Rental.
13					\$ cts.
14	Canadian Northern Town Properties Co., Limited.	Lease of lots Nos. 5 and 6, Block 23, cor. of Railway ave. 3rd street, Townsite of Wadena, Sask.	Immigration	5 years from 1st Jan. 1918.	1.00 p. annum.
15	William Randolph Graham	Lease of "Graham building" s. e. cor. of Sussex and Water sts., Ottawa, Ont.	Board of Historical Publications.	5 years from date of occupation.	1,080.00 p. ann.
15	His Majesty	Lease of portion of government property on Wellington st., Ottawa, Ont.	Private purpose	5 years from 10th Aug. 1916.	5,000.00 p. ann.
15	Miss Margaret White	Lease of 3 rooms, 1 vault and 1 lavatory in building St. Louis st., Quebec, Que.	Archives Dept.	1 year from 30th April 1918.	33.00 p. month
17	Edwin Reddy Company Ltd.	Lease of building on s. w. cor. of Elgin and Queen sts., Ottawa, Ont.	Depts. of Customs and Militia and Defence	5 yrs from date that the whole of building is taken possession of.	23,000.00 p. ann.
25	Leas Bracher	Lease of building, Gortzen st., Halifax, N.S.	Postal Station in north end of City.	1st Dec. 1917 to 30 April '19.	35.00 p. month.
31	R. L. & R. Blackburn	Lease of rooms Nos. 411, 412 and 413 in "Union Bank building" Ottawa, Ont.	Board of Pension Commissioners.	31st Jan. 1918 to 1st Dec. 1919.	1,200.00 p. ann.
34	Canadian Bank of Commerce	Lease of rooms Nos. 1, 4 and 5 on 2nd floor of building Nos. 15 and 16, south 20 ft. of lot 16, Revelstoke, B.C.	Lands Branch Interior Dept., Area 300 s. p. ft.	1 year from 1st Feb. 1918.	60.00 p. month.
36	Edward Wood Clark	Lease of premises Nos. 12, w. side of Emmett and s. side of Legat st., Ottawa, Ont.	Militia and Defence	1 year from 30th April 1918.	50.00 p. month.
38	Royal Bank of Canada	Lease of 2nd floor of building s. w. cor. of Sparks and Metcalfe sts., Ottawa, Ont.	Militia and Defence	From 8th Feb. 1918 during pleasure.	900.00 p. quart.
42	Imperial Realty Co., Ltd.	Lease of office on e. side of ground floor of "Canadian building" 12 and 14 Slater st. Ottawa, Ont.	Federal Administration of Dom. Government	From date of occupation to May 1923.	186.19 p. ann.
48	Quebec Railway, Ltd., Haw & Paver Co., Ltd., John James Graham	Lease of 2nd floor and toilet room in building St. John st., Quebec, Que.	Colonization Office	1 year from 1st May 1918.	500.00 p. ann.
55		Lease of building on Tupper st., Portage La Prairie, Man.	Customs Department	1 year from 8th April 1918.	35.00 p. month.
57	Harvey Hassel	Lease of 2 rooms on 1st floor of "Canadian Block" Charlottetown, P.E.I.	Supt. of Dom. buildings	1 year from date of occupation.	150.00 p. ann.

SESSIONAL PAPER No. 19

March 1... ..	Hope Realty Limited.	"	"	Lease of 1 room and vault in building cor. of Sparks and Elgin sts., Ottawa, Ont.	Chief Censor.	From date of occupation to 5th Feb. 1918 and from month to month until end of war.
1.....	John A. Blakeman.....	"	"	Lease of room in building on lot 2, Block 100, Virden, Man.	Immigration.....	12 months from 1st March 1918.
2.....	Canadian Cottons, Ltd....	"	"	Privilege to excavate for and lay a line of water pipe through Co's land at Marysville, N.B.	Pub. building.....	For 7 years.....
4.....	Edward Seybold.....	"	"	Lease of "Eclipse building" No. 72 Albert st., Ottawa, Ont.	Militia & Defence .	3 years from date of occupation.
6.....	Royal Bank of Canada	"	"	Lease of mezzanine floor in building s. w. cor. of Sparks and Metcalfe sts., Ottawa, Ont.	Militia & Defence .	From 6th March 1918 (during pleasure).
11.....	Royal Bank of Canada	"	"	Lease of 5 rooms in Quebec Bank building, Wellington st., Ottawa, Ont.	Statistical Branch of Railways & Canals.	1 year from 1st May 1918.
12.....	John Best.....	"	"	Lease of store in building n. w. cor. of Johnston road and Elizabeth st., Alberni, B.C.	Post office	1 year from 1st April 1918.
14.....	Wm. James Boyd.	"	"	Lease of part of 2nd floor of "Boyd building" cor. of Edmonton st. and Portage ave., Winnipeg, Man.	Railway Commission . . .	1 year from 1st June 1918.
14.....	Miss Louisa Parks.	"	"	Lease of three story b'd'g known as "Parks Convalescent Home" Sandy Point Road, City of St. John, N.B.	.....	For duration of war from 14th March 1918.
14.....	Donald J. McDougall.....	"	"	Lease of 3rd floor of b'dlg. No. 527 Sussex St., Ottawa, Ont.	Central Appeal Judge, Judge Duff.	1 m. from date of occupation and thereafter from month to month.
15.....	His Majesty.....	Hugh Pick.....	"	Lease of lot 18, block 18, Townsite of Gravelbourg, Sask.	Private enterprise	2 years from 15th March '18
18.....	D. McIsaac.....	His Majesty ..	"	Permission to dig and excavate a trench under and through a portion of his land at Antigonish, N. S.	For conveying sewerage of Post Office.	During pleasure.
18.....	Edw. Rupert McNeill.....	"	"	Lease of 2,888 sq. ft. on 2nd and 3rd floors of b'd'g. No. 202 Queen St., Ottawa, Ont.	Soldiers' Settlement Bd	1 year from date of occupation.
18.....	Thomas C. James.....	"	"	Lease of ground floor and basement in b'd'g. cor. Bank and Laurier avenue, Ottawa	Insp. of Taxation (Dept. of Finance).	1 year from date of occupation.
19.....	Sir Rodmond P. Roblin..	"	"	Lease of premises No. 103 Osborne St., Winnipeg, Man.	Postal Station "C"	1 year from 1st Feb. '18.
22.....	Thomas C. Rice.....	"	"	Lease of b'd'g. on w. side of main road and s. side of bridge, Weymouth, N. S.	Post Office.	1 year from 1st June '18.
26.....	Hope Realty Limited.....	"	"	Lease of rooms Nos. 606, 607, 608, 609, 610 and 611 in building No. 63 Sparks St., Ottawa, Ont.	Director of Information..	From month to month from date of occupation
28.....	The Governor & Company of Adventurers of England	"	"	Lease of portion of land in Hudson's Bay Reserve, Athabasca Landing, Alta.	Immigration	5 years from 1st June 1918.

STATEMENT No. 3. Properties leased to and from the Department of Public Works of Canada, from April 1, 1917, to March 31, 1918.—*Concluded.*

Date of Lease.	Lessee.	Lessors.	Description of Property.	For What Purpose.	Duration of Lease.	Rental.
1918						\$ cts.
March 20, 1918	Smith & Peck	His Majesty	Lease of 1 room in bldg. at Campobello, N. B.	Insp. of Fisheries (Naval Service.)	1 year from 31st Dec. '17.	120 p. annum.
" 20 "	Pine Printing Co., Ltd.	"	Lease of room No. 5 in " Post Building," Sydney, N. S.	Sub-Agent of Marine and Fisheries.	1 year from 1st May '18.	180 p. annum.
" 20 "	World News-Paper Co., Ltd.	"	Lease of 2 flats (4th and 5th), in " World Building," 40 W. Richmond St., Toronto.	For Staff of Military District No. 2.	For duration of war and 1 year after.	5,500 p. ann.
The following items were received too late for insertion in last year's annual report (1916-1917).						
1917						\$
Sept. 2, 1916	The International Mercantile Marine Co., Ltd.	His Majesty	Lease of warehouse building on lot of George and Bedford Rows, Halifax, N. S.	Inland Revenue Dept. (Customs and Excise), Weights and Measures Insp. Office.	1 year from 1st Oct. '15.	1,000 p. ann.
Dec. 21, 1916	Harlow Tupper Ware	"	Lease of 2 rooms on 2nd floor of building, Digby, N. S.	Insp. of Fisheries.	3 years from date of occupation.	120 p. ann.
March 3, 1917	Arthur Gordon	"	Lease of building on lot No. 3, near cor. of Portage Ave. and Lepton St., Winnipeg, Man.	Postal Station "D".	5 years from 3rd March '17.	1,600 p. ann.

LIST of some of the Public Acts of the Parliament of the Dominion of Canada, passed at the First Session of the Thirteenth Parliament, begun and holden at Ottawa, on the Eighteenth day of March, 1918, and closed by Prorogation on the Twenty-Fourth day of May, 1918, and having reference to the Public Works Department or works under its charge (8-9 George V) and Orders of the Governor General in Council, having force of law.

Subject.	Full Title of the Statute.	Chapters.	Page in Statute Book.
Construction of works in navigable waters.	An Act to amend the Navigable Waters Protection Act.....	33	115
Power to dredge, etc., beds of navigable waters.	An Act to amend the Public Works Act.....	37	125

N.B.—By proclamation dated the 28th day of February, 1918, the tariff of tolls to be levied by the Upper Ottawa Improvement Company, Limited, for the use of their works during the season of 1918, was approved. *Vide Canada Gazette*, vol. li, p. 3044.

By proclamation of the 28th February, 1918, the tariff of tolls to be levied by the Rouge Boom Company, of Montreal, for the use of their works during the season of 1918, was approved. *Vide Canada Gazette*, vol. li, p. 3044.

THE NATIONAL GALLERY OF CANADA

By ERIC BROWN, Director.

Owing to the continued occupation of the premises of the National Gallery by the Houses of Parliament, the work of the National Gallery has again been concentrated upon the development of its policy of loan exhibitions of works of art to any art gallery or body which has proper facilities for exhibiting them, and of thus utilizing to the fullest extent the possessions of the National Gallery for the furtherance of artistic knowledge throughout the Dominion.

The previous grant of twenty-five thousand dollars (\$25,000) had enabled a limited number of Canadian works of art to be purchased, so that the loan exhibitions had not suffered from lack of material. The application by the trustees for an appropriation of thirty thousand dollars (\$30,000) for the current year, however, was not granted, and the main Parliamentary Estimates included no more than eight thousand dollars (\$8,000), sufficient for the running expenses of the National Gallery, including salaries and upkeep of possessions. Upon further application by the trustees an additional sum of ten thousand dollars (\$10,000) was appropriated in the Supplementary Estimates and the annual grant totalled eighteen thousand dollars (\$18,000).

The following regular annual loans of works of art were sent out during the year: St. John, N.B., twenty-seven pictures; Sherbrooke, Que., twenty-six pictures; Fort William, Ont., twenty pictures; Winnipeg, Man., twenty-five pictures; Regina, Sask., twenty-one pictures; Moosejaw, Sask., twenty pictures.

Arrangements were also made for a regular annual loan to Halifax, but this had to be cancelled owing to the Nova Scotia Museum of Fine Arts building being seriously damaged in the explosion.

The following special exhibitions of works of art were arranged:—

Loan of thirty-three lithographs to Halifax, N.S., November, 1917. This loan was on exhibition only four days owing to the building in which they were exhibited being destroyed by the explosion. Fortunately only slight damage was done to the lithographs.

Loan of sixty-nine drawings to the Art Association of Montreal, December, 1917, to February, 1918.

Loan of "Charity" by Frank Brangwyn, A.R.A., P.R.B.A., to Madeleine de Verchères Chapter, I.O.D.E., for their exhibition of paintings at the Chateau Laurier, November 29 to December 3, 1917.

Loan of nine pictures to the Central Canada Exhibition at Ottawa, September 8 to 15, 1917.

Loan of seventy-five Steinlen lithographs to the Art Museum of Toronto during February and March, 1918.

Loan of thirty-one pictures to the Western Canada Fairs Association from June to August, 1917. The circuit included Calgary, Edmonton, Brandon, Regina, Saskatoon, Prince Albert. This loan afterwards went to Vancouver in August, 1917.

Loan of "Dieppe, The Beach, Grey Effect," by J. W. Morrice to the Los Angeles Modern Art Society, Los Angeles, California, March, 1918.

These exhibitions were all eminently successful, and the rapid increase of applications for them is sufficient evidence of the growing desire for artistic knowledge throughout the country.

The National Gallery Travelling Scholarship of one thousand dollars (\$1,000) was judged for the fourth successive year by the Council of the Royal Canadian Academy, and was awarded with the trustees' concurrence to Mr. Manly E. MacDonald, Point Anne, Ont.

The following by-law, made under the terms of the National Gallery of Canada Act, received the approval of the Honourable Minister of Public Works:—

SECTION D. For the protection of its property and the property in its care and charge.

The trustees met formally on two occasions, and the following works of art were acquired by gift or purchase:—

Jane Catherine Cummins... .. Water colour "Sketch." Presented by S. S. Cummins:
Charles Dana Gibson... .. Two pen and ink drawings—
"Tragic Moments. The Rev.— reads his latest comedy to his niece."
"He: Who is that tramping around overhead?
She: Oh, that's only papa. He always gets restless towards morning."

Horatio Walker, R.C.A. Autumn.

Oil Paintings—

Grier, E. Wyly, R.C.A.	.. .. .	The Master of Northcote.
Challener, F. S., R.C.A.	.. .. .	Aphrodite's Realm.
Johnston, F. H., O.S.A.	.. .. .	A Northern Night.
MacDonald, J. E. H., A.R.C.A.	.. .. .	Asters and Apples.
Reid, Mary H., A.R.C.A.	.. .. .	Study in Rose and Green.
Coburn, F. S.	.. .. .	Danville Roses.
Earle, Paul B.	.. .. .	The First Snow.
Gagnon, Clarence A., A.R.C.A.	.. .. .	Street Scene, Quebec at Night.
Harris, Robert, C.M.G., R.C.A.	.. .. .	My Old Montreal Model.
Rosaire, Arthur D., A.R.C.A.	.. .. .	The Garden of Light.
Shore, Henrietta M.	.. .. .	Negro Woman and Children.
Barnsley, James MacDonald.	.. .. .	In the Fields.
Barnes, Wilfred M.	.. .. .	A Summer Storm.
De Belle, Charles.	.. .. .	The Sisters.
FitzGerald, L. L.	.. .. .	Late Fall, Manitoba.
Knowles, E. A. McG., A.R.C.A.	.. .. .	"Drink to Me Only with Thine Eyes."
Lismer, Arthur, O.S.A.	.. .. .	Winter Camouflage.
MacDonald, J. E. H., A.R.C.A.	.. .. .	Cattle by the Creek.
Neilson, H. Ivan, A.R.C.A.	.. .. .	Spring's Garland.
Wrinch, Mary E., O.S.A.	.. .. .	Snow Magic.

Steinlen, M.	Eighty-six lithographs.
Russell, Gyrth, R.B.A.	The White Barn.
Raine, Herbert, A.R.C.A.	The Old Courtyard.
Cotton, John Wesley.	The Open Cut.
Beaupré, Eugène L.	Child Study.
Phillips, Walter J.	Winnipeg River No. 3.
“ “	The Reader.
Crockart, James.	Stirling from Millhall.
Smith, Lewis.	Barges at Hammersmith.
“ “	Unloading Thames Barges.
Sutherland, Fred. W.	Sleeping Lion.
“ “	New Road, Boston Suburbs.
Greene, T. G., O.S.A.	The Fisherman.
Bartolozzi.	The Drawing Lesson.
“	Portrait of Annibale Carracci.
Schiavonetti.	Madonna and Child.
“	Pieta.

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Drawing Prints—Continued.

Wolf, Henry.. . . .	Morning Star.
" "	Self Portrait.
" "	The Wood Gatherer, after Innes.
" "	Lady with Shawl, after Chase.
" "	Young Woman at a Window, after Vermeer.
" "	Don Balthazar Carlos, after Velasquez.
" "	Boy with a Sword, after Manet.
Daubigny.. . . .	Autumn in the Morvan.
Whistler, James McNeill.. . . .	En Plein Soleil.
" " "	La Retameuse.
" " "	Annie Standing.
" " "	Liverdun.
Lismer, Arthur.. . . .	The Transport, Halifax.
Maw, Samuel Herbert.. . . .	Siena Cathedral, Nave.
" " "	Tilbury.
" " "	The Lagoon, Venice.
Sterner, Albert.. . . .	Seated Dancer.
" "	The Blind.
Copley, John.. . . .	Footlights.
Gabain, Ethel.. . . .	La Toilette.
Pilot, Robert.. . . .	Ten Sketches, Witley Camp, Surrey.
Barnsley, James MacDonald.. . . .	Too Late.
" " "	Sketch in Holland No. 1.
" " "	Sketch in Holland No. 2.
Phillips, W. J.. . . .	The Golden Hour.
Fosbery, Ernest, A.R.C.A.. . . .	The Storm.
Lapine, André.. . . .	The Wind Mill.
Lalande, E.. . . .	The Sunningdale Golf Links, Berks.
Fawcett, George.. . . .	A Deserted Indian Camp, Minaki, Ont.
Stevens, Dorothy, O.S.A.. . . .	Paddy.
Johnston, Francis H., O.S.A.. . . .	The Magic Pool.
Raine, Herbert, A.R.C.A.. . . .	The Pilgrims, St. Anne de Beaupré.
Keagey, James W.. . . .	Old Muski, Cairo.
Burnside, J. T. M.. . . .	Three Sketches in Sepia.
Veresmith, Daniel.. . . .	The Little Sackmenders.

Water Colours—

Johnston, Francis H., O.S.A.. . . .	The Guardian of the Gorge.
Holmes, Robert, A.R.C.A.. . . .	Mocassin Flowers.
Jefferys, Charles, A.R.C.A.. . . .	Rocks of Georgian Bay.
McGillivray, F. H., O.S.A.. . . .	Midwinter, Dunbarton, Ont.

Pastels—

Brownell, Franklin, R.C.A.. . . .	Frozen Meat.
" " "	Potatoes.
" " "	The Blue Sledge.
" " "	Hay Sleds.
" " "	Weigh Scales.
Perrigard, Hal Ross.. . . .	Breaking for the Tunnel.

Sculpture—

Wyle, Florence.. . . .	Sun Worshipper.
Hahn, Emanuel.. . . .	The Indian Scout (Bronze).

Medici Prints—

Durer, Albrecht.. . . .	Hands in the Act of Prayer.
Ghirlandaio, Domenico.. . . .	The Vision of St. Fina, after Fresco.